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County Council of Middlesex.



ANNUAL REPORT
OF THE
COUNTY MEDICAL OFFICER OF HEALTH
FOR THE
YEAR 1906,
INCLUDING A
SUMMARY OF THE ANNUAL REPORTS OF THE
DISTRICT MEDICAL OFFICERS OF HEALTH.

BY

C. W. F. YOUNG, M.D., D.P.H.,
County Medical Officer of Health.

London:

HARRISON AND SONS, ST. MARTIN'S LANE,
Printers in Ordinary to His Majesty.

1907.

BOROUGH OF HORNSEY.
TOWN CLERK'S OFFICE.

NUMBER

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




ADMINISTRATIVE
COUNTY OF
MIDDLESEX.

1906.



INFANTILE MORTALITY.

Or proportion of deaths of children
under 1 year of age to every 1000
births.

Less than 100	..	..	..	..
100 and less than 110	
110 „ 120	
120 „ 130	
130 „ 140	
140 and upwards	

County Council of Middlesex.



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INDEX.

	PAGE
Acton	206
Acts, Adoptive, By-laws and Regulations	193
Area	7
Arsenic in Glycerine	181
Birth-rates	19, 20
Births	18
,, attended by Midwives, lists of.. .. .	108
Boats, Canal	146
Brentford	207
Butter	181
By-laws, Regulations and Adoptive Acts	193
Canal Boats	146
Cancer	98
Cerebro-spinal Fever	77
Children, Medical Supervision of School	184
Chiswick	208
Cholera	76
Common Lodging-houses	141
Cowsheds, Dairies, and Milkshops	158
Croup, Membranous and Diphtheria	52
,, ,, ,, ,, Age Distribution	53
Customs and Inland Revenue Acts	184
Dairies, Cowsheds and Milkshops	158
Death-rates, Corrected for Age and Sex Distribution	26
Deaths	21
Diarrhœa	87
Diphtheria and Membranous Croup	52
,, ,, ,, ,, Age Distribution	53
Diseases, Notifiable Infectious.. .. .	39
Diseases, Principal Epidemic	36
Disinfection	128
Districts, Number of	7
Drugs Act, Food and	176
Dwellings, Movable	142
Ealing	209
Edmonton	210

	PAGE
Enfield	211
Epidemic Diseases, Principal	36
Enteric Fever	58
„ „ Age Distribution	59
Erysipelas	76
Factory and Workshop Act	171
Feltham	212
Fever, Cerebro-spinal	77
„ Enteric	58
„ Puerperal	73
„ Relapsing.. .. .	76
„ Scarlet	41
„ Typhoid	58
„ Typhus	76
Finchley	213
Food and Drugs Act	176
Food, Inspection.. .. .	183
„ Unsound	183
Friern Barnet	214
Glycerine, Arsenic in	181
Greenford	215
Hampton	216
Hampton Wick	217
Hanwell	218
Harrow	219
Hayes	220
Hendon (rural)	238
„ (urban).. .. .	221
Heston and Isleworth	222
Hornsey	223
Hospital Accommodation, Smallpox	125
„ Cases removed to	126
Hospitals, Isolation	109
House Refuse	169
Houses, Common Lodging	141
„ Inhabited	8
„ let in Lodgings.. .. .	141
„ Tenement	141
Hygiene, School	184

	PAGE
Infantile Mortality, Rate in each district	35
„ „ Table showing deaths from stated causes	28
Infectious Diseases, Notifiable	39
Inhabited Houses	8
Inland Revenue Acts, Customs and	184
Inspection, Food	183
Isolation Hospitals	109
Kingsbury	224
Legislation	192
Lodging Houses, Common	141
Lodgings, Houses let in.. .. .	141
Measles	78
Medical Supervision of School Children	184
Membranous Croup and Diphtheria	52
„ „ „ „ Age Distribution	53
Midwives Act	99
Milk	176
Milkshops, Dairies, Cowsheds, &c.	158
Mortuary Accommodation	170
Movable Dwellings	142
Notifiable Infectious Diseases	39
Number of Districts	7
Offensive Trades	168
Overcrowding	141
Plithis and other Tuberculous Disease	90
Population	9
Preservatives	178
Principal Epidemic Diseases	36
Puerperal Fever	73
Regulations, Adoptive Acts, By-laws and	193
Relapsing Fever	76
Revenue Acts, Inland, Customs and	184
Ruislip-Northwood	225
Sanitary Staff	188
Scarlet Fever	41
„ „ Age Distribution.. .. .	43

Index.

	PAGE
School Children, Medical Supervision of	184
Sewage Disposal, Sewerage and	152
Slaughter-houses	167
Smallpox	40
,, Hospital Accommodation	125
Southall-Norwood	226
Southgate	227
South Mimms	239
Staff, Sanitary	188
Staines (rural)	240
,, (urban)	228
Still-births	106
Sunbury	229
 Teddington	 230
Tenement Houses	141
Tottenham	231
Tuberculous Disease, Phthisis and other	90
Twickenham	232
Typhoid Fever	58
Typhus	76
 Unsound Food	 183
Uxbridge (rural)	241
,, (urban)	233
 Vaccination	 41
 Water Supply	 147
Whooping Cough	84
Wealdstone	234
Wembley	235
Willesden	236
Wood Green	237
Workshop, Factory and, Act	171

Administrative County of Middlesex.



REPORT on the Vital Statistics and Public Health Administration, 1906.

AREA. NUMBER OF DISTRICTS. INHABITED HOUSES.

The Administrative County of Middlesex contains an area of 148,700 acres. The details of this area, together with the number of separate local areas for sanitary administration, and the enumerated number of inhabited houses are set out in the following table.

	Number.		Area in acres.		Inhabited houses.
	Census 1901.	1906.	1901.	1906.	Census 1901.
Municipal Boroughs	—	2	—	5,822	—
Urban Districts	29	30	88,105	93,969	125,204
Rural ,,	4	4	60,595	48,909	10,227
The County ..	33	36	148,700	148,700	135,431

The two municipal boroughs are Ealing, which was incorporated by Order in Council dated 13th May, 1901, and Hornsey, which was incorporated in 1903. The difference noticeable in the number of urban districts since the date of the census is partly due to the creation of the above municipal boroughs, and partly to the creation of 3 new urban districts out of three parishes which formerly formed part of two of the rural districts, namely, Feltham urban district, formerly in Staines rural district, and Hayes and Ruislip-Northwood, both formerly parishes in the rural district of Uxbridge.

The total number of civil parishes comprised in the thirty-six districts is 60. Twenty-nine districts each consist of a single civil parish, whilst seven consist of more than one each, thus :—

Of the *Urban* districts :—

Brentford comprises 2 parishes, namely, Old Brentford and New Brentford.

Greenford comprises 3 parishes, namely, Greenford, Perivale and Twyford Abbey.

Heston and Isleworth comprises 2 parishes, namely, Heston and Isleworth.

Uxbridge comprises 2 parishes, namely, Uxbridge and Hillingdon West.

Of the *Rural* districts :—

Hendon comprises 5 parishes, namely, Harrow Weald, Pinner, Edgware, Great Stanmore and Little Stanmore.

Staines comprises 10 parishes, namely, Ashford, Hanworth, Laleham, Littleton, Shepperton, Cranford, East Bedfont, Harlington, Harmondsworth, and Stanwell.

Uxbridge comprises 7 parishes, namely, Cowley, Hillingdon East, West Drayton, Yiewsley, Harefield, Ickenham, and Northolt.

POPULATION.

The population, which is given in this report, is an estimate of the number of persons residing in the County at the middle of the year 1906. It is necessary to take this period rather than the beginning or the end of the year under review, inasmuch as the births and deaths upon which the statistics are made are those which take place throughout the whole twelve months, and the population at the middle of the year may be regarded as being the nearest approach to the mean population to which these births and deaths relate.

In the following table I give the enumerated populations at the date of the census in 1891 and 1901 respectively, and the estimated population for 1906. It should be noted that the census figures refer to the early part of the year as the enumeration is usually made in March, whilst the estimate refers to the middle of the year.

Population.

	Population (enumerated).				Population Estimated.
	1891.		1901.		Middle 1906.
	Persons.	Males.	Females.	Persons.	Persons.
Urban Districts ..	501,470	346,087	395,062	741,149	966,208
Rural Districts ..	41,424	24,974	26,191	51,165	48,851
The County.. ..	542,894	371,061	421,253	792,314	1,015,059

From the foregoing table it will be seen that in the decade 1891-1901 there was an increase of 249,420, equivalent to 46·0 per cent., whilst in the five years between 1901 and 1906 the estimated increase has been 222,745 or 28 per cent.

It may be well here to explain the method adopted in arriving at this estimated population.

The increase which takes place in a population depends on two factors, (*a*) the excess of births over deaths in the area, and (*b*) the excess of immigration over emigration. During the six years 1901-1906 inclusive, the births in Middlesex have exceeded the deaths by 82,978, so that obviously this has played but a small part in the expansion which has taken place. It is to the latter of the above-mentioned factors that the remarkable increase in the population must be ascribed, and the important part which this cause is having is due to the position of the County in relation to the Metropolis, and to the considerable increase and improvement in means of locomotion, which by enabling persons to reside further from their places of work, create a demand for houses in districts which a few years back were rural or semi-rural in character.

In making an estimate of the population of a district the difficulty of approximating to accuracy increases as the period lengthens from the date of the last census, and this is specially the case in an area where changes such as are above referred to are taking place. There are two methods which may be used in order to arrive at an

estimate. One of these is based upon the assumption that the population has increased year by year since the last census at the same rate as it did between that census and the previous one, and with the aid of logarithms the estimated population can be arrived at. By this method the estimated population of the County at the middle of 1906 is 966,258. The assumption that the rate of increase since 1901 has been the same as it was between 1891 and 1901, however, would not be correct as regards most parts of Middlesex, and for this reason, most of the medical officers of health in arriving at an estimate of the populations of their respective districts have adopted the other method. In this it is assumed that the average number of persons per inhabited house has remained the same as it was at the date of the last census, the number of houses in occupation at the middle of the year is obtained from the rate books, and this is multiplied by the average number of persons per house. By this means the estimated population of the County is 1,015,059.

The difference between the estimates arrived at by each of these methods is considerable, but the local knowledge which must be possessed by medical officers of health should enable them to exercise a check on the figures obtained as regards their own district, and under existing conditions there is no sufficient reason for estimating the population of the County as other than the sum total of the estimates of the districts which constitute it.

In this connection it is worthy of note that in the urban district of Harrow a census was taken by the district council on the 28th June, 1906, and the population was

found to be 13,697. At the middle of 1905, the population of this district was estimated to be 13,000, and in 1904 to be 12,313.

The gross population of the County, based on the estimates of the local medical officers of health, is 1,015,059. In the following table the estimated population of each district is set out :—

District.						Census 1901.	Estimated middle 1906.
URBAN.							
Acton	..	..	..	..	..	37,744	52,000
Brentford	..	..	..	..	..	15,171	15,906
Chiswick	..	..	..	..	..	29,809	33,873
Ealing (<i>Borough</i>)	..	..	..	..	..	33,031	48,316
Edmonton	{ District		..	..	..	44,911	56,818 }
	{ Institutions ¹		..	..	..	1,988	
Enfield	..	..	..	..	..	42,738	52,797
Feltham	..	..	..	..	..	4,534	5,773
Finchley	..	..	..	..	..	22,126	30,750
Friern Barnet	{ District		..	..	..	8,816	10,625 }
	{ Asylum ²		..	..	..	2,750	
Greenford	..	..	..	..	..	819	1,200
Hampton	..	..	..	..	..	6,813	9,000
Hampton Wick	..	..	..	..	..	2,606	2,630
Hanwell	..	..	..	..	..	10,438	19,776
Harrow	..	..	..	..	..	10,220	13,697*
Hayes	..	..	..	..	..	2,594	3,000
Hendon	{ District		..	..	..	21,685	27,546 }
	{ Institutions ³		..	..	..	765	
Heston and Isleworth	..	..	..	..	..	30,863	33,767
Hornsey (<i>Borough</i>)	..	..	..	..	..	72,056	86,877
Kingsbury	..	..	..	..	..	757	805
Ruislip-Northwood	..	..	..	..	..	3,566	4,755
Southall-Norwood	{ District		..	..	..	10,365	18,777 }
	{ Asylum ⁴		..	..	..	2,835	
Southgate	..	..	..	..	..	14,993	25,500
Staines	..	..	..	..	..	6,688	7,046
Sunbury	..	..	..	..	..	4,544	4,680
Teddington	..	..	..	..	..	14,037	17,000
Tottenham	..	..	..	..	..	102,541	134,605
Twickenham	..	..	..	..	..	20,991	27,000
Uxbridge	..	..	..	..	..	8,585	9,300
Wealdstone	..	..	..	..	..	5,901	10,760
Wembley	..	..	..	..	..	4,519	6,000
Willesden	..	..	..	..	..	114,811	141,714
Wood Green	..	..	..	..	..	34,233	46,000
RURAL.							
Hendon	..	..	..	..	..	8,647	11,476
South Mimms	..	..	..	..	..	2,671	2,808
Staines	..	..	..	..	..	18,095	21,824
Uxbridge	..	..	..	..	..	11,058	12,743

¹ The Strand Union Workhouse and Edmonton Union Workhouse, in which sick persons from other districts are lodged, and the Strand Union Schools.

² London County Lunatic Asylum (Colney Hatch).

³ Cleveland Street Sick Asylum (Strand district) and Hendon Union Workhouse, in which sick persons from outside districts are lodged.

⁴ London County Lunatic Asylum (Hanwell).

* Enumerated population.

The estimated population of the County given above includes that of certain public institutions situated in the County, but which do not belong to it. In these, for the most part, are lodged infirm or sick persons, and as for the purpose of correct vital statistics it is necessary to exclude the deaths of such persons from the County total, it is also essential to exclude the populations of these institutions as far as possible. On the other hand the two lunatic asylums belonging to Middlesex are situated outside the County, one at Wandsworth, in the County of London, the other at Napsbury, in the County of Hertfordshire, and for the same reason the deaths and populations of these must be brought into the County figures. With the information available to me I am able to make the following correction, *for statistical purposes*, in the County population given above, viz., 1,015,059. Deduct 5,238 representing the average population of *outside* institutions situated in the County, and add 2,159 the average population of the two Middlesex Asylums *situated without* the County area. This gives a total of 1,011,980, and it is this figure upon which the rates relating to the County in this report are based.

I have referred above to the fact that it is necessary to *exclude* the deaths of persons in certain institutions in the County and to *include* those of residents occurring and registered outside the County.

It is also necessary as regards the separate districts to distribute institutional deaths to the area to which they rightly belong. In order to make these corrections as complete as possible I have arranged, with the sanction of the County Council, to do this at the end of each year.

The need that there is for these corrections will be gathered from the following account as to *Public Institutions*, which I gave in the County report for 1905. It is necessary to repeat it in view of the fact that some alterations have taken place in the staff of district medical officers of health in the County.

1. Institutions in the County the population and deaths in which should be *excluded* :—

Strand Union Workhouse	..	situated in Edmonton.
Colney Hatch Lunatic Asylum	„	Friern Barnet.
Hanwell Lunatic Asylum	..	„ Southall-Norwood.
Northern Fever Hospital, M.A.B.	„	Southgate.
North-Eastern Fever Hospital, M.A.B., except beds reserved for Tottenham	.. ..	„ Tottenham.

2. Institutions outside the County the deaths and average population in which of Middlesex residents need to be *included*, and *distributed* to the various districts to which they rightly belong :—

County Lunatic Asylum	situated at Wandsworth.
County Lunatic Asylum	„ Napsbury.
Barnet Union Workhouse	„ in Barnet U.D.

To be distributed to { Finchley.
Friern Barnet.
South Mimms.

Kingston Union Workhouse, situated in Kingston U.D.

To be distributed to { Hampton.
Hampton Wick.
Teddington.

London Hospitals, situated in London.

Other outside hospitals, *e.g.*, Richmond.

3. Institutions within the County of Middlesex the deaths in which need to be *distributed* amongst the districts in which the persons previously resided :—

Brentford Union Workhouse, situated in Heston and Isleworth.

To be distributed amongst	{	Acton.
		Brentford.
		Chiswick.
		Ealing.
		Greenford.
		Hanwell.
		Heston and Isleworth.
	{	Twickenham.

Hendon Union Workhouse, situated in Hendon.

To be distributed amongst	{	Harrow.
		Hendon Urban.
		Hendon Rural.
		Kingsbury.
		Wealdstone.
		Wembley.

Staines Union Workhouse, situated in Staines Rural District.

To be distributed amongst	{	Feltham Urban District.
		Staines Rural District.
		Sunbury Urban District.
		Staines Urban District.

Uxbridge Union Workhouse, situated in Uxbridge Rural District.

To be distributed amongst	{	Hayes.
		Ruislip-Northwood.
		Uxbridge Rural District.
		Uxbridge Urban District.
		Southall-Norwood District.

Tottenham Hospital, situated in Tottenham.

4. Institutions within the County some of the deaths in which are to be *excluded* from the County, and others *distributed* amongst districts in the County :—

Edmonton Union Workhouse, situated in Edmonton.

(a) Exclude those belonging to { Cheshunt U.D.
Waltham Cross U.D.

(b) Distribute remainder amongst { Edmonton.
Enfield.
Hornsey.
Wood Green.
Southgate.
Tottenham.

Enfield Workhouse.

BIRTHS.

The total number of births recorded in the annual reports of medical officers of health as having been registered in the Administrative County of Middlesex, during the year 1906, was 27,035. This is equal to a birth-rate of 26·7 per 1,000 persons living, as compared with an average rate of 28·2 during the five preceding years, 1901–1905. The following table shows the birth-rates during each year since 1901, in the County, in London, and in England and Wales generally :—

COUNTY OF MIDDLESEX.

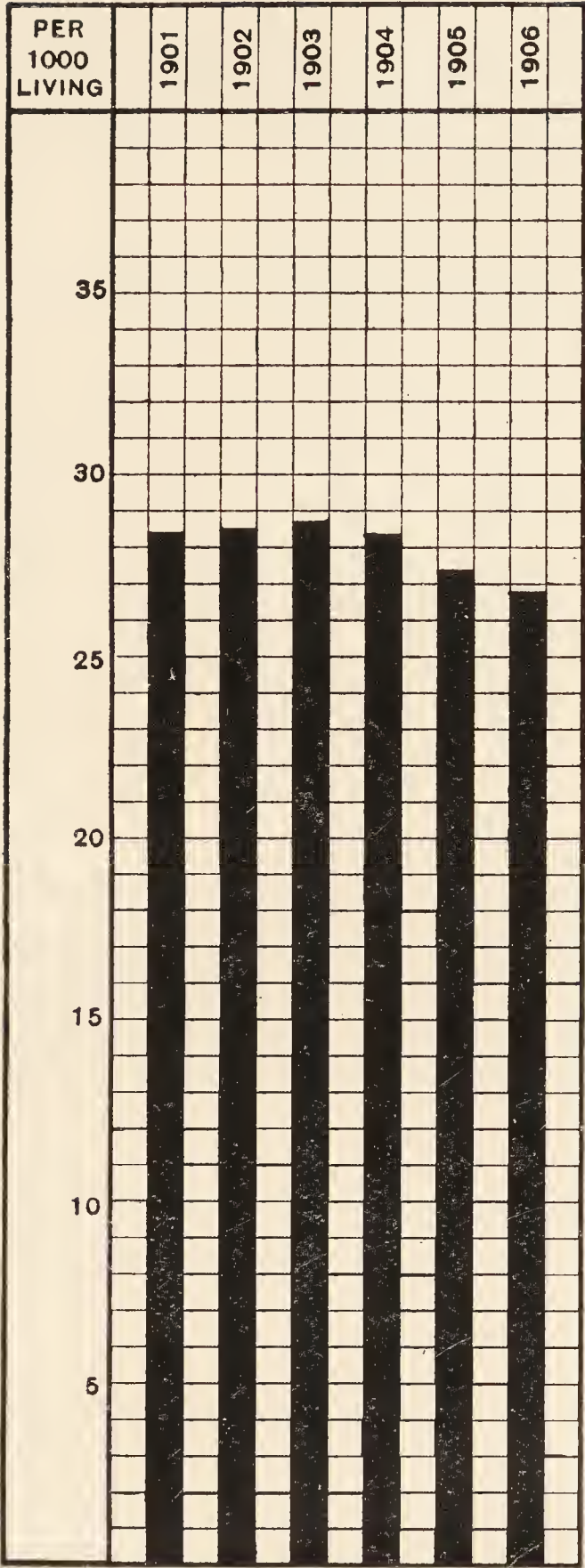


DIAGRAM 1,
SHOWING BIRTH-RATE PER 1,000 PERSONS LIVING.

Birth-rates.

Years.	The County.		England and Wales.*	London.*	76 Great Towns.*
	Births.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.
1901	22,500	28·4	28·5	28·8	—
1902	23,766	28·5	28·6	28·4	30·0
1903	25,342	28·6	28·4	28·3	29·7
1904	26,392	28·3	27·9	27·7	29·1
1905	26,501	27·3	27·2	27·0	28·2
<i>Average, 1901-1905</i>		28·2	28·1	28·0	—
1906	27,035	26·7	27·0	26·5	27·8

* The yearly rates for England and Wales, London, and 76 Great Towns, are taken from the Annual Summaries of the Registrar-General. The average for England and Wales, for the years 1901-1905, is from the 68th Annual Report of the Registrar-General. The London birth-rate is corrected for births occurring in lying-in institutions.

It will be noted that the decline which has been taking place in the country generally is also noticeable in Middlesex.

In the following table the birth-rates of the thirty-six districts are set out:—

Births and Birth-rates in each District. 1906.

District.	Births.	Birth-rate per 1,000.	District.	Births.	Birth-rate per 1,000.
URBAN.			Kingsbury ..	13	16.1
Acton ..	1,533	29.4	Ruislip-Norwood ..	119	25.2
Brentford ..	476	29.9	Southall-Norwood ..	621	33.0
Chiswick ..	852	25.1	Southgate ..	562	22.0
Ealing (<i>Borough</i>) ..	1,171	24.2	Staines ..	171	24.2
Edmonton ..	1,881	33.1	Sunbury ..	115	24.5
Enfield ..	1,334	25.2	Teddington ..	438	25.7
Feltham ..	143	24.7	Tottenham ..	3,674	27.2
Finchley ..	773	25.1	Twickenham ..	811	30.0
Friern Barnet ..	291	27.4	Uxbridge ..	253	27.2
Greenford ..	19	15.8	Wealdstone ..	303	28.1
Hampton ..	198	22.0	Wembley ..	172	28.6
Hampton Wick ..	40	15.2	Willesden ..	4,272	30.1
Hanwell ..	564	28.5	Wood Green ..	1,232	26.7
Harrow ..	327	23.2	RURAL.		
Hayes ..	88	29.3	Hendon ..	205	17.8
Hendon ..	703	25.5	South Mimms ..	61	21.7
Heston and Isleworth ..	1,134	33.5	Staines ..	525	24.0
Hornsey ..	1,603	18.4	Uxbridge ..	358	28.1

The birth-rates in the greater number of the districts are lower than those recorded in 1905, but in the following districts they are higher, viz. :—Ealing, Hampton Wick, Hanwell, Heston and Isleworth, Hornsey (very slightly), Southall-Norwood, Southgate, Staines (urban), Teddington, Twickenham, Wealdstone, Wembley, Willesden.

DEATHS.

The number of deaths of residents of Middlesex during 1906 was 12,244. This is the total arrived at after *exclusion* of the deaths of non-residents, which were registered in the County as having occurred in institutions which receive sick persons belonging elsewhere, and *inclusion* of the deaths of Middlesex residents which occurred, and were registered, outside the County.

In the rates given in the following table, corrections are also made for the age and sex distribution of the population of the County so that they may be comparable with the death-rates elsewhere.

It will be noticed that the fully corrected death-rate shows a slight increase as compared with that of the year 1905, but is less than the average death-rate for the previous five years, namely, 1901–1905 inclusive.

Deaths and Death-rates. All Causes.

Year.	The County.		London.*	England and Wales.*	76 Great Towns.*
	Deaths. (corrected.)	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.
1901	10,562	14·0	18·7	16·9	—
1902	11,675	14·7	18·6	16·2	—
1903	10,645	12·6	16·4	15·4	—
1904	12,199	13·8	17·4	16·2	18·3
1905	11,233	12·2	15·8	15·2	16·7
<i>Average, 1901–1905</i>		<i>13·4</i>	—	<i>16·0</i>	—
1906	12,244	12·7	15·8	15·4	16·8

* From the Annual Summaries of the Registrar-General, except the average rate for England and Wales, which is from the 68th Annual Report of the Registrar-General.

The corrected death-rate of the County compares favourably with that of England and Wales, and also with that of London. Comparison can also be made with those districts in London which border immediately upon Middlesex, the conditions in which are perhaps more akin to those

COUNTY OF MIDDLESEX.

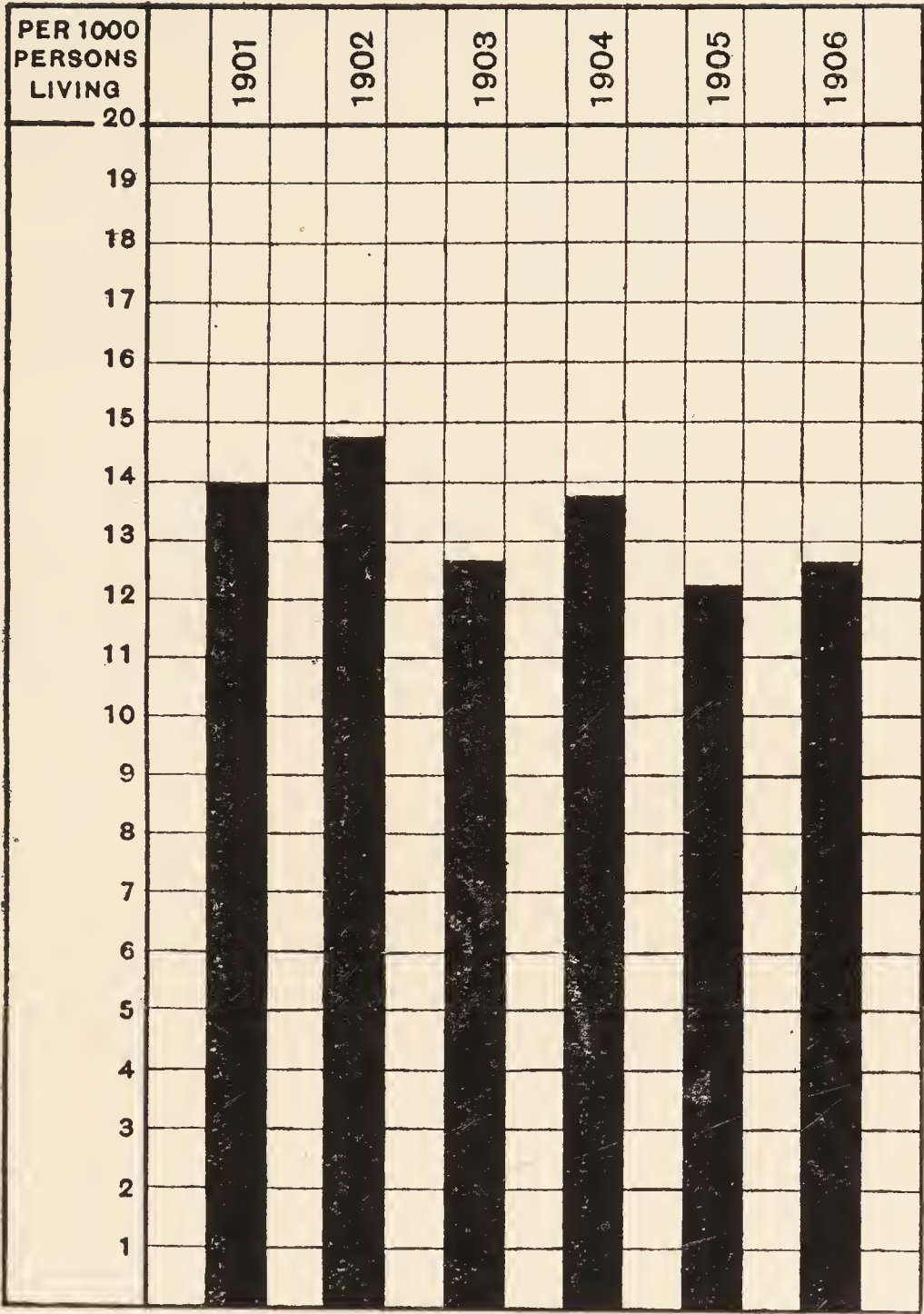


DIAGRAM 2,
SHOWING DEATH-RATE FROM ALL CAUSES
PER 1,000 PERSONS LIVING.

prevailing in the County, and I have extracted the following figures from the Annual Summary of the Registrar General for this purpose:—

	Per 1,000.		Per 1,000.
Hammersmith	.. 15·3	St. Pancras	.. 16·5
Kensington	.. 14·9	Islington ..	.. 15·3
Paddington	.. 13·3	Stoke Newington ..	12·0
Marylebone	.. 15·8	Hackney ..	.. 13·8
Hampstead	.. 10·6		

The chief causes of death of residents of the County are shown in the following table. In this table the figures have been fully corrected by the exclusion of deaths of non-residents and the inclusion of deaths of residents occurring outside the County.

*Deaths in the County of Middlesex registered during the year
1906. Corrected for Deaths in Institutions.*

CAUSE OF DEATH.	0—	1—	5—	15—	25—	65 and up- wards.	Total at All Ages.
Smallpox	—	—	—	—	—	—	—
Measles.. ..	50	176	21	—	—	—	247
Scarlet Fever	5	44	39	6	6	—	100
Whooping Cough	89	84	6	—	—	—	179
Diphtheria and Mem- branous Croup	6	72	57	2	3	1	141
Croup	2	12	3	—	—	—	17
Typhus.. ..	—	—	—	—	—	—	—
Enteric	—	1	14	14	23	—	52
Continued Fever	—	—	—	—	—	—	—
Influenza	7	13	5	3	81	59	168
Cholera.. ..	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—
Diarrhœa	883	163	3	1	17	39	1,106
Enteritis	205	38	18	8	33	20	322
Puerperal Fever	—	—	—	9	29	—	38
Erysipelas	9	3	1	1	5	6	25
Other Septic Diseases..	9	4	3	8	36	8	68
Phthisis	6	24	28	164	629	25	876
Other Tuberculous Diseases	114	141	66	36	51	7	415
Cancer	—	5	2	11	513	305	836
Bronchitis	141	68	4	2	111	323	649
Pneumonia	224	220	33	26	283	142	928
Pleurisy	1	3	1	3	19	9	36
Other Respiratory Diseases	18	34	6	1	41	51	151
Alcoholism and Cirrhosis of the Liver	*1	—	—	2	139	40	182
Venereal Diseases	22	3	1	2	8	1	37
Premature Birth	511	—	—	—	—	—	511
Childbirth	—	—	—	10	30	—	40
Heart Diseases.. ..	2	7	35	46	735	771	1,596
Accident	57	45	30	19	104	37	292
Suicide	—	—	—	9	77	9	95
All other causes	916	223	120	98	759	1,021	3,137
Total from All Causes	3,278	1,383	496	481	3,732	2,874	12,244

* The death of a child aged 3 months from "Cirrhosis of the Liver." It occurred in an institution outside the County.

In the next table the recorded death-rates and the death-rates corrected for age and sex distribution in each of the sanitary districts comprised in the County are set out.

On comparison of the latter it will be seen that the highest rates and those which are greater than the County rate of 12·7 relate to the following districts, giving them in order of highest to lowest.

Brentford ..	17·6	Friern Barnet ..	14·2
Uxbridge		Edmonton ..	13·9
(Urban)	15·6	Acton	13·7
Heston and		Chiswick ..	13·6
Isleworth	15·2	Ealing	13·6
Sunbury ..	15·1	Southall-Norwood	13·5
Teddington ..	14·6	Tottenham ..	13·3
Uxbridge		Hanwell ..	13·0
(Rural)	14·5	Greenford ..	12·9
Twickenham..	14·2		

In the year 1905 also Brentford showed the highest general death-rate. It was then 18·2 per 1,000, so that for the present year a reduction has to be noted. As regards Sunbury and Greenford respectively it should be borne in mind that the population of each district is relatively small, both being under 5,000 persons and that therefore there is greater liability to fluctuation from year to year. For 1905 the death-rate of Sunbury was 12·2 and for Greenford 8·2.

Death-rates corrected for Age and Sex Distribution.

—			Standard Death- rate.	Factor for Correction for Age and Sex dis- tribution.	Recorded Death- rate 1906.	Corrected Death- rate 1906.
<i>Urban.</i>						
Acton .. ..	..	..	17·45	1·04240	13·2	13·7
Brentford .. ..	..	..	17·51	1·03859	17·0	17·6
Chiswick .. ..	..	..	17·30	1·05174	13·0	13·6
Ealing (<i>Borough</i>) ..	..	..	17·03	1·06804	12·8	13·6
Edmonton .. ..	..	..	17·87	1·01785	13·7	13·9
Enfield .. ..	..	..	17·29	1·05198	11·2	11·7
Feltham ⁽¹⁾	—	—	11·2	—
Finchley .. ..	..	..	16·81	1·08227	11·7	12·6
Friern Barnet .. ..	..	..	16·89	1·07740	13·2	14·2
Greenford .. ..	..	..	19·78	·91982	14·1	12·9
Hampton .. ..	..	..	17·78	1·02300	10·5	10·7
Hampton Wick .. ..	..	..	17·71	1·02716	10·2	10·4
Hanwell .. ..	..	..	16·84	1·08040	12·1	13·0
Harrow .. ..	..	..	15·71	1·15834	9·4	10·8
Hayes ⁽¹⁾	—	—	16·6	—
Hendon .. ..	..	..	17·15	1·03063	10·9	11·5
Heston & Isleworth ..	..	..	18·02	1·00977	15·1	15·2
Hornsey (<i>Borough</i>) ..	..	..	15·97	1·13919	8·8	10·0
Kingsbury .. ..	..	..	16·91	1·07600	11·1	11·9
Ruislip-Northwood ⁽¹⁾	—	—	8·2	—
Southall-Norwood ..	..	..	17·31	1·05131	12·9	13·5
Southgate .. ..	..	..	17·40	1·04533	10·8	11·2
Staines .. ..	..	..	17·50	1·03948	11·3	11·7
Sunbury .. ..	..	..	18·09	1·00575	15·1	15·1
Teddington .. ..	..	..	17·37	1·04726	14·0	14·6
Tottenham .. ..	..	..	16·86	1·07931	12·4	13·3
Twickenham .. ..	..	..	17·64	1·03123	13·8	14·2
Uxbridge .. ..	..	..	18·83	·96628	16·2	15·6
Wealdstone .. ..	..	..	16·07	1·13203	7·9	8·9
Wembley .. ..	..	..	16·27	1·11846	8·8	9·8
Willesden .. ..	..	..	17·01	1·06979	11·8	12·6
Wood Green .. ..	..	..	16·57	1·09801	10·6	11·6
<i>Rural.</i>						
Hendon .. ..	..	..	16·97	1·07187	8·8	9·4
South Mimms .. ..	..	..	19·31	·94216	11·0	10·3
Staines .. ..	..	..	18·38	·99004	12·1	11·9
Uxbridge .. ..	..	..	18·65	·97576	14·9	14·5
The County .. ..	..	..	17·23	1·05600	12·0	12·7

(1) Figures for age and sex distribution not available, as this was not a separate district at last census.

COUNTY OF MIDDLESEX.

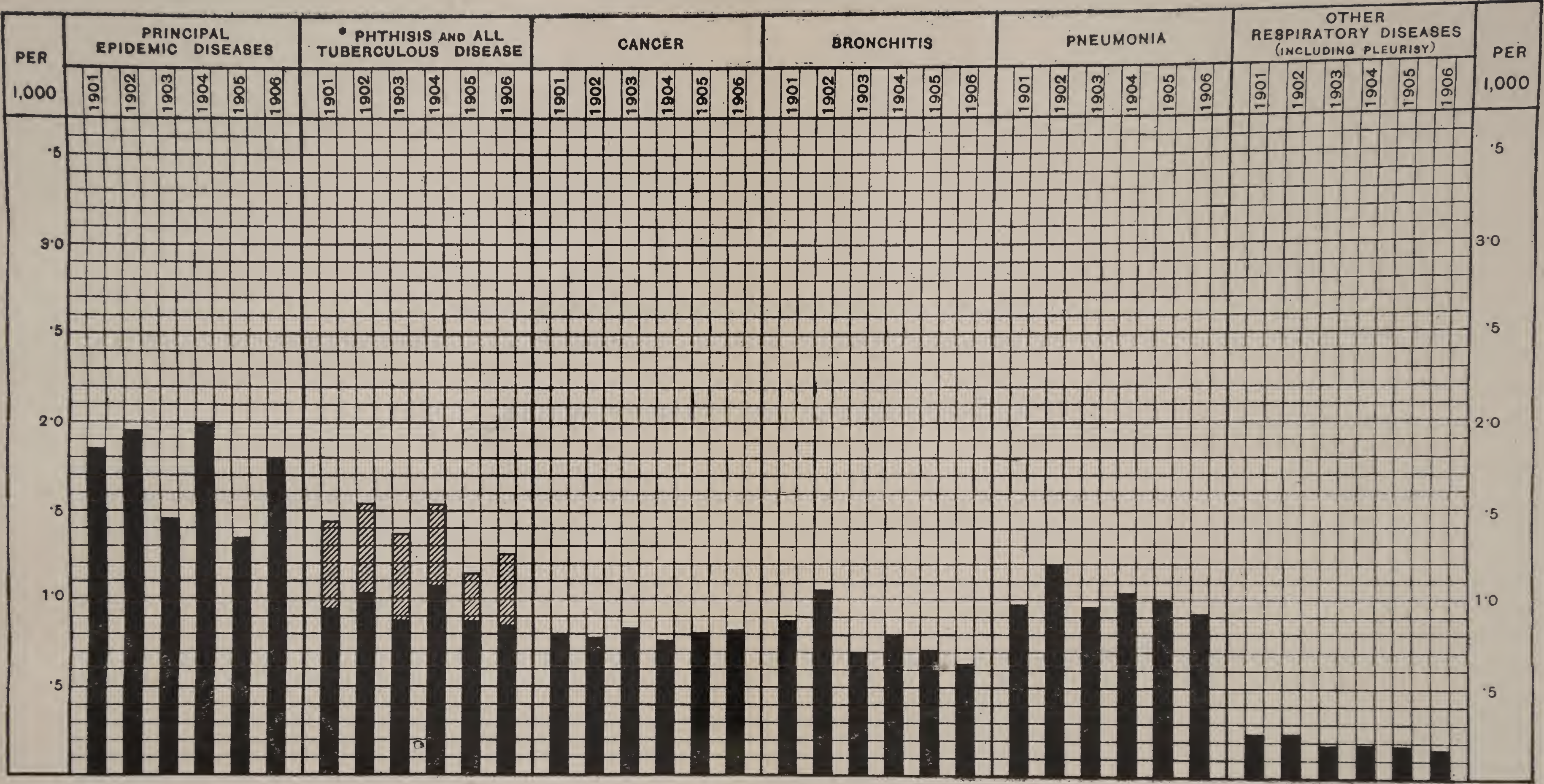


DIAGRAM 3,
SHOWING DEATH-RATES PER 1,000 PERSONS LIVING FROM
CERTAIN DISEASES.

* Black columns represent Phthisis or Pulmonary Consumption.
Black columns *plus* hatched columns represent *all Deaths* from Tuberculous Disease.

INFANT MORTALITY.

The corrected number of deaths of children under one year of age belonging to the Administrative County of Middlesex during the year 1906 was 3,278, which is in the proportion of 121 to every 1,000 births registered in the County.

The following table shows the number of such deaths and the proportion per 1,000 births, during each of the last six years :—

Infantile Mortality.

Year.	Middlesex.			Lon- don.*	Eng- land and Wales.*	76 Great Towns.
	Births.	Deaths (corrected) under 1 year.	Rates per 1,000 Births.	Rate per 1,000 Births.	Rate per 1,000 Births.	Rate per 1,000 Births.
1901	22,500	3,006	133	148	151	—
1902	23,766	3,063	129	139	133	—
1903	25,342	2,967	117	130	132	—
1904	26,392	3,602	136	144	146	160
1905	26,501	2,839	107	129	128	140
<i>Average 1901—1905 ..</i>			<i>124</i>	—	—	—
1906	27,035	3,278	121	131	133	145

* From Registrar-General's Annual Summary.

There is a well marked increase in this death-rate compared with 1905, and the rate for 1906 is almost equal to the average rate for the previous five years. The rate, however, compares favourably with that of England and Wales, which also shows an increase as compared with 1905. This tends to show that the higher rate in Middlesex is due to some general condition, but in order to form any conclusion as to this it is necessary to know what causes contributed to this death-rate, and these accordingly have been abstracted for the County, and are fully set out so far as relates to 3,239 of the deaths, in the following table :—

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
i. Common Infectious Diseases.	Small-pox..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria: Croup..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
ii. Diarrhoeal Diseases.	Whooping Cough ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diarrhoea, all forms..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Enteritis, Muco-enteritis, Gastro-enteritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Gastritis, Gastro-intestinal Catarrh	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Premature Birth ..	333	39	47	31	450	10	3	3	6	3	2	1	1	..	3	1	37
iii. Wasting Diseases.	Congenital Defects ..	47	11	12	7	77	5	5	4	2	3	1	..	..	2	..	..
	Injury at Birth ..	19	3	..	..	22	..	..	1	..	..	..	..	..	..	..	..
	Want of Breast-milk	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Starvation	1	5	1	1	8	1	4	2	4	3	2	..	..	1	..	25
	Atrophy, Debility, Marasmus..	65	22	41	23	151	64	30	27	14	13	11	8	6	5	3	337

	1	2	1	3	2	1	6	7	2	3	4	3	35
Tuberculous Meningitis ..	1	1	..	..	..	..	..	..	..	..	..	..	..
Tuberculous Peritonitis: Tabes Mesenterica ..	1	1	..	10	2	4	3	2	..	4	2	1	37
Other Tuberculous Diseases ..	..	1	1	3	3	6	4	3	3	2	1	2	39
Erysipelas ..	..	4	1	..	1	1	..	..	..	..	..	..	7
Syphilis ..	2	3	2	1	2	..	..	..	..	..	..	..	21
Rickets ..	..	..	..	..	1	..	2	1	2	..	2	1	11
Meningitis (<i>not Tuberculous</i>) ..	1	1	1	6	4	4	9	8	2	4	6	4	53
Convulsions ..	13	14	5	10	5	10	8	6	9	4	7	2	146
Bronchitis ..	5	14	5	15	10	9	11	11	10	7	11	12	150
Laryngitis ..	1	..	..	1	..	..	..	..	..	..	1	1	5
Pneumonia ..	1	16	5	18	16	12	15	19	27	18	13	18	203
Suffocation, overlying	..	7	3	9	1	3	..	2	..	..	..	..	44
Other Causes	24	35	16	12	18	8	11	16	8	9	7	10	269
Total ..	572	997	117	265	226	202	208	178	162	131	136	126	3,239

From the figures given in the foregoing table it will be seen that by far the largest number of deaths from any single cause, namely, 883, is debited to diarrrhœa. In 1905, out of a total of 2,811 deaths, the number due to diarrrhœa was 315, so that obviously during 1906 the conditions favourable to this disease had much greater influence.

If we take all diarrrhœal diseases the number of deaths equals 1,082, or practically one-third of the deaths from all causes. On analysing the figures as to diarrrhœa further, it is worthy of note that up to the end of the first month but relatively few deaths occur from this disease. After this month the numbers markedly increase, and this increase is maintained till the seventh month is reached, when they begin to drop rapidly. Now it is probable that in most cases children for the first few weeks of their existence are suckled by their mothers even if after this they are, for one or other reason, weaned and brought up by hand. The natural period to wean a child is at or about the ninth month and the nearer it is to this age the better chance in all probability a child has of withstanding the evils attendant on hand feeding, whereas the earlier this change is made the more likely it is to suffer from alimentary complaints, such as diarrrhœa, especially if, owing either to ignorance or neglect on the part of the mothers or of those having the care of the child, improper form of diet is given. Between two and seven months of age 496 deaths occurred out of the total of 883 and this fact tends to the suggestion that change in the method of rearing the child may have influence in bringing about the deaths of so many infants from diarrrhœa. There is evidence in some of the reports,

based upon inquiry made, that artificial feeding has an undoubted influence in the matter and reference may be made to the following :—

In his report on Acton Dr. Thomas states that in that district the mothers usually suckle their infants for a period of four to six weeks, and that as the result of inquiry into 75 deaths from diarrhoeal disease 72 were those of children which had been artificially fed.

He also sets out the effect of overcrowding in tenements upon infant mortality, based upon the result of special inquiry into 135 deaths. Forty-two per cent. were found amongst occupants of three-roomed tenements, in which overcrowding was also found to be marked. Another point to which he directs attention is the fact that of these 135 deaths 61 occurred amongst first-born children. This he attributes largely to ignorance on the part of the mother as to the care and management of a child.

Dr. Bott (Brentford) writes that the increased death-rate is due to the large mortality from diarrhoeal disease, and points out that one great difficulty to overcome is the leaving of infants to the care of young children whilst the mothers go out to work.

In the Finchley report the medical officer of health has calculated the mortality in relation to the rateable value of the houses occupied, taking this as an index of the "social conditions" of the occupants. He gives the following figures:—In houses with a rateable value over £50 the mortality was 84 per 1,000 births; £30–£50 a

mortality of 113; and under £30 a mortality of 127. He expresses the opinion that "the ignorance of many mothers as to an average infant's requirements is undoubtedly answerable for much needless suffering."

Dr. Steegmann, in his report on Heston and Isleworth, more especially draws attention to "the large proportion of deaths that was caused by what may not unfairly be classed as preventable causes. Probably most of the deaths due to diarrhœa, premature birth, and the somewhat vague diseases called atrophy, debility and marasmus need not have occurred had the mothers taken proper care of themselves and their infants. Considerably more than half the total deaths were attributed to these causes."

Dr. William Butler, in his report on Willesden, sets out in detail, and shows by the aid of charts some interesting facts based upon the results of the inquiries made by the lady health visitors into births and infant deaths. During the year enquiry was made into nearly 2,000 cases. He states, as regards the facts obtained, "they throw an interesting light on the conditions affecting infantile mortality, and a study of the results convinces that the chief factor in the excessive mortality of infants is what may be described as defective mothering. Whether this results from ignorance or indifference, from physical, economical or imbecile inability to mother their offspring, the facts show conclusively that the infants who die are the children of mothers who, for the most part, have failed to afford their young the mere animal opportunities of survival." Attention is specially directed to the influence of hand-feeding as

COUNTY OF MIDDLESEX.

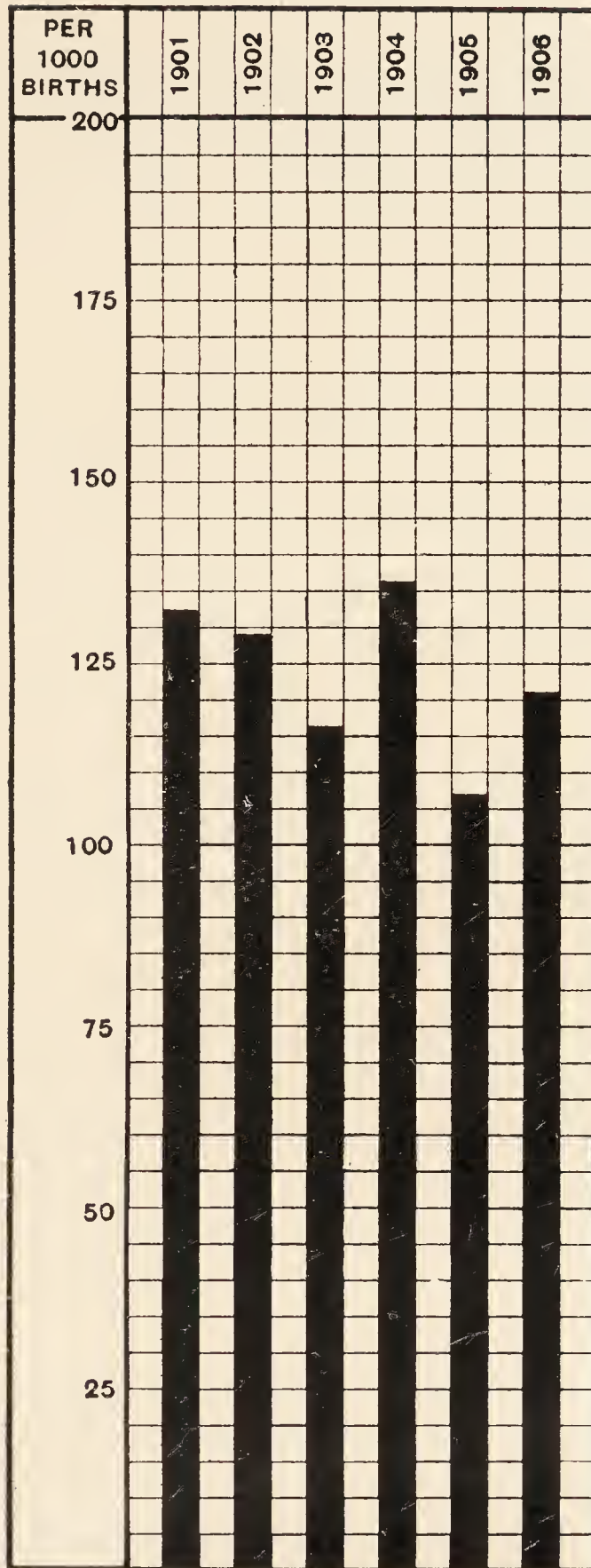


DIAGRAM 4,
SHOWING INFANTILE MORTALITY, OR
PROPORTION OF DEATHS UNDER 1 YEAR, PER 1000 BIRTHS.

compared with breast-feeding, as regards which it was found that out of 331 infant deaths investigated 60 per cent. of those which died were hand-fed, whilst of 1,522 which survived over twelve months less than 12 per cent. were so fed.

Death occurs amongst hand-fed infants in greater proportion in the case of all causes of death. "In other words artificially fed infants have a lowered vitality . . . as is shown by the greater mortality from such diseases as bronchitis, pneumonia, measles and whooping cough — diseases which apparently bear no direct relation to the method of feeding."

Of other diseases it was found that of children dying from zymotic diarrhoea 88 per cent. were exclusively hand-fed; from tuberculosis 78 per cent.; from marasmus 66 per cent.; from enteritis 63 per cent.

In many of the reports reference is made to the fact that the increase in the infantile mortality last year was mainly accounted for by a greater number of deaths from diarrhoea in the third quarter of the year, and that this was associated with very hot and dry weather. This will be again referred to in dealing with diarrhoea.

In the following table the infant mortality rate of each district is set out. From this and from the chart at the beginning of the report, it will be seen that the district with the highest rate is Uxbridge (rural), which has the very high rate of 181 per 1,000 births, but no special remarks as to this are made by the medical officer of health, except that the increase was due to diarrhoeal

deaths during the hot summer. Other districts with a rate of 140 or over are Brentford, Southall-Norwood, Staines (urban) and Greenford, but as regards the last-named district it needs to be pointed out that the figures on which the rate is based are small.

The next highest rates, namely, of 130 but under 140 per 1,000 births, occurred in Edmonton, Tottenham, Heston and Isleworth, Twickenham, Friern Barnet and Hanwell; the following had rates under 130 but higher than the County rate of 121, namely, Acton, Ealing and Hayes, whilst Teddington had a rate equal to that of the County as a whole :—

Infantile Mortality in each District, 1906.

District.	Death- rate per 1,000 Births.	Births.	Deaths.	District.	Death- rate per 1,000 Births.	Births.	Deaths.
URBAN.				Kingsbury	76	13	1
Acton ..	125	1,533	193	Ruislip-Northwood	58	119	7
Brentford ..	140	476	67	Southall-Norwood	154	621	96
Chiswick ..	115	852	98	Southgate ..	106	562	60
Ealing (<i>Borough</i>) ..	129	1,171	152	Staines ..	146	171	25
Edmonton ..	131	1,881	248	Sunbury ..	95	115	11
Enfield ..	110	1,334	148	Teddington ..	121	438	53
Feltham ..	118	143	17	Tottenham	131	3,674	484
Finchley ..	117	773	91	Twickenham	133	811	108
Friern Barnet ..	130	291	38	Uxbridge ..	118	253	30
Greenford ..	157	19	3	Wealdstone	92	303	28
Hampton ..	90	198	18	Wembley ..	81	172	14
Hampton Wick ..	25	40	1	Willesden..	111	4,272	477
Hanwell ..	131	564	74	Wood Green	103	1,232	127
Harrow ..	88	327	29	RURAL.			
Hayes ..	125	88	11	Hendon ..	82	205	17
Hendon ..	102	703	72	South Mimms	82	61	5
Heston and Isleworth	134	1,134	153	Staines ..	11.	525	59
Horsey (<i>Borough</i>) ..	84	1,603	136	Uxbridge ..	181	358	65

PRINCIPAL EPIDEMIC DISEASES.

The diseases upon which this death rate should be calculated are the following :—

Smallpox.	Fever (including typhus,
Measles.	typhoid, and continued
Scarlet Fever.	fever).
Diphtheria.	Epidemic diarrhœa.
Whooping Cough.	

It is necessary to note that these are not all of them notifiable diseases. The death rate is commonly spoken of as the zymotic death rate.

The corrected deaths from these diseases belonging to the County have been equal to the following rates per 1,000 persons living during recent years :—

Principal Epidemic Diseases.
Rates per 1,000 living.

Year.	London.*	England & Wales.*	The County.
1901	2·25	2·05	1·87
1902	2·23	1·64	1·96
1903	1·77	1·46	1·47
1904	2·18	1·94	2·00
1905	1·71	1·52	1·31
Average, 1901-1905.			1·71
1906	1·93	1·73	1·80

* From Registrar-General's Annual Summaries.

The total number of deaths from these diseases was 1,825, made up as follows:—

Smallpox	..	—	Whooping Cough	179
Measles ..	..	247	“Fever” ..	52
Scarlet Fever	..	100	Diarrhœa ..	1,106
Diphtheria	..	141		

It will be seen that the bulk of these deaths is contributed by diarrhœa.

In the following table the rates in each district are given:—

Principal Epidemic Diseases.—Rates per 1,000 living.

District.		1904.	1905.	1906.	District.		1904.	1905.	1906.
<i>Urban.</i>									
Acton ..	..	2.2	1.3	2.3	Kingsbury ..	..	—	—	2.4
Brentford..	..	4.4	2.1	3.7	Ruislip-Norwood ..	..	* 1.9	0.4	—
Chiswick ..	..	2.8	1.7	1.6	Southall-Norwood ..	..	0.7	1.5	2.0
Ealing ..	..	1.5	1.0	1.9	Southgate..	..	0.4	0.7	1.8
Edmonton ..	..	3.3	2.3	3.0	Staines ..	..	5.6	0.7	1.7
Enfield ..	..	3.5	1.8	2.7	Sunbury ..	..	1.3	0.8	1.0
Feltham ..	..	2.1	1.5	1.8	Teddington ..	..	1.9	0.8	1.8
Finchley ..	..	1.7	0.6	1.5	Tottenham ..	..	1.8	1.0	2.1
Friern-Barnet ..	..	2.3	1.0	1.5	Twickenham ..	..	1.3	0.7	2.3
Greenford ..	..	—	—	1.6	Uxbridge ..	..	1.0	1.6	1.7
Hampton ..	..	2.2	2.0	1.2	Wealdstone ..	..	1.9	1.4	1.2
Hampton Wick ..	..	0.3	0.7	1.9	Wembley ..	..	1.7	1.1	0.3
Hanwell ..	..	2.4	0.5	2.7	Willesden ..	..	1.7	1.7	1.7
Harrow ..	..	0.7	0.9	0.5	Wood Green ..	..	2.4	1.0	1.7
Hayes ..	..	*	—	2.3	<i>Rural.</i>				
Hendon ..	..	1.9	1.8	1.3	Hendon ..	..	0.1	0.2	0.6
Heston and Isleworth ..	..	2.4	1.9	2.4	South Mimms ..	..	1.0	1.1	1.1
Hornsey ..	..	0.8	0.4	0.8	Staines ..	..	1.2	1.2	2.1
					Uxbridge ..	..	1.6†	1.2	1.9

* Hayes and Ruislip-Norwood were not separate districts, but formed part of Uxbridge Rural District.

† Including Hayes and Ruislip-Norwood.

NOTIFIABLE INFECTIOUS DISEASE.

The Infectious Disease (Notification) Acts, 1889 and 1899, provide that the following diseases shall be compulsorily notifiable, namely :—

Smallpox,	The fevers known as—
Cholera,	Typhus,
Diphtheria,	Typhoid or Enteric,
Membranous Croup,	Relapsing,
Erysipelas,	Continued, and
Scarlet Fever, or	Puerperal.
Scarlatina.	

Further, it is possible for any local authority, on complying with certain requirements of the Acts, to add to the list. Under this provision cerebro-spinal fever has been made notifiable in some districts in Middlesex, and measles in Greenford since November, 1906. On the other hand, the notification of measles, which has for several years been compulsory in the district of Hampton, was discontinued in 1906.

With the co-operation of the district medical officers of health, a compilation of the notifications received in the county week by week is made and distributed to each district. In order to make the information as useful as possible, copies of this are also sent to the adjoining counties of London, Essex, Hertfordshire, and Surrey, as well as to the Local Government Board and the Director of Water Examinations of the Metropolitan Water Board.

The total weekly number of notifications relating to the chief diseases is shown in graphic form in the diagrams at page 132.

During the calendar year the total number of notifications, exclusive of measles, in the County, was :—

Smallpox ..	0	Continued Fever	4
Scarlet Fever ..	4,080	Typhus	0
Diphtheria ..	1,473	Relapsing Fever	0
Membranous		Puerperal Fever	56
Croup	25	Erysipelas ..	793
Enteric Fever ..	386		

SMALLPOX.

It is satisfactory to record that during the year 1906 no case of smallpox was notified in the County.

In the following table are set out the figures for recent years, together with the case rate, case-mortality rate and death-rate :—

Smallpox.

Year.	Cases.	Deaths.	Case rate per 1,000 living.	Case mortality per cent.	Death-rate per 10,000 living
1901	157	18	0·17	13·1	0·22
1902	1,711	283	2·05	16·5	3·39
1903	115	4	0·13	3·4	0·04
1904	59	1	0·06	1·7	0·01
1905	11	—	0·01	—	—
<i>Average 1901–1905</i>			<i>0·46</i>	<i>14·9</i>	<i>0·06</i>
1906	—	—	—	—	—

VACCINATION.

The returns relating to the condition of vaccination of the population in the *registration* County of Middlesex and in each of the separate Unions comprised therein are set out in the following table. The figures are obtained from the report of the Medical Officer of the Local Government Board for 1904-5, and relate to the year 1903, the latest date for which figures are available.

Vaccination.—Percentage of Births Registered, 1903.

Unions.	Success- fully vacci- nated. (1)	Exempted by "Conscientious Objection" Certificates. (2)	Not finally accounted for. (3)	Un- vaccinated. (Cols. 2 & 3)
Brentford ..	78·0	0·7	12·5	13·2
Edmonton ..	70·3	1·2	19·8	21·0
Hendon ..	86·3	3·7	2·3	6·0
Staines ..	82·4	1·3	8·1	9·4
Uxbridge ..	84·1	1·5	5·9	7·4
Willesden ..	71·5	2·2	16·7	18·9
The Registra- tion County	74·7	1·4	15·1	16·5
England and Wales ..	75·4	4·0	10·7	14·7

SCARLET FEVER.

During the year 4,080 notifications of cases of scarlet fever were received in the County. This is equivalent to a case rate of 4·03 per 1,000 persons living.

The corrected number of deaths was 100 as compared with 42 in 1905. The death-rate was 0·098 per 1,000 living, and the case-mortality rate 2·45 per cent.

In the following table are given the various rates since 1901, and the average rates for the five years 1901–1905 inclusive.

Scarlet Fever.

Year.	Cases.	Deaths (corrected)	Case rate.	Death- rate.	Case mortality per cent.
			Per 1,000 living.		
1901	3,461	61	4·37	0·076	1·76
1902	3,073	64	3·69	0·076	2·07
1903	2,753	59	3·10	0·066	2·14
1904	2,827	44	3·03	0·047	1·55
1905	2,901	42	2·98	0·043	1·44
<i>Average 1901-1905</i> ..			<i>3·40</i>	<i>0·061</i>	<i>1·79</i>
1906	4,080	100	4·03	0·098	2·45

Although the death-rate from this disease shows a marked increase it does not compare unfavourably with the same death-rate in other parts of the country, thus the Registrar General gives the death-rate for London as 0·11, for 76 great towns as 0·12, for 142 smaller towns as 0·09, and for England and Wales as a whole as 0·10 per 1,000 persons.

The subject of increase in the number of cases notified will be referred to later.

The distribution of the cases of scarlet fever during 1906 at various age groups was as follows. The corrected deaths and the case mortality at each age group are also given:—

*Scarlet Fever, Age Distribution.**

Age group.	Cases.	Corrected deaths.	Case mortality per cent.
0-1	36	5	13·8
1-5	1,057	44	4·1
5-15	2,501	39	1·5
15-25	307	6	1·9
25-65	179	6	3·3
65 and up	—	—	—

* In the reports relating to Enfield and Uxbridge (rural), the cases have not been given in age groups, and it has been necessary to distribute them in each group in the same proportion as the rest of the County.

The cases notified, and the deaths *recorded* in the report relating to each district, are set out in the following table. The case rates and death-rates are also given.

Scarlet Fever, 1906. Age Distribution of Cases and Deaths, together with Case and Death Rates.

	Case rate per 1,000 living		CASES NOTIFIED.						DEATHS RECORDED.						Death-rate per 1,000 living
	All ages.	Under 1 year.	1-5.	5-15.	15-25.	25-65.	65 and up.	Under 1 year.	1-5.	5-15.	15-25.	25-65.	65 and up.	All ages.	
URBAN.															
Acton ..	3.26	1	40	107	17	5	—	—	3	3	—	1	—	7	0.13
Brentford ..	10.05	1	57	92	6	4	—	1	4	2	—	—	—	7	0.44
Chiswick ..	3.57	—	29	75	12	5	—	—	—	—	—	—	—	—	—
Ealing (<i>Borough</i>) ..	2.75	—	34	80	9	10	—	—	—	—	—	1	—	1	0.02
Edmonton ..	6.74	3	108	236	25	11	—	—	6	5	1	1	—	13	0.22
Enfield ..	4.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Feltham ..	7.10	1	8	30	1	1	—	1	—	2	—	—	—	7	0.13
Finchley ..	4.16	2	43	69	8	6	—	—	3	—	—	—	—	1	0.17
Friern Barnet ..	1.78	—	7	9	2	1	—	—	—	—	—	—	—	5	0.16
Greenford ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hampton ..	2.66	—	6	15	2	—	—	—	—	—	—	—	—	—	—
Hampton Wick ..	16.73	—	11	28	3	2	—	—	—	—	1	—	—	1	0.38
Hanwell ..	4.85	—	29	51	8	8	—	—	1	—	—	1	—	2	0.10
Harrow ..	1.31	—	5	11	2	—	—	—	—	—	—	—	—	—	—
Hayes ..	1.33	1	2	1	—	—	—	—	—	—	—	—	—	—	—
Hendon ..	4.21	—	18	87	7	4	—	—	—	1	1	—	—	2	0.07
Heston & Isleworth ..	2.04	2	14	46	4	3	—	—	—	—	—	—	—	—	—
Hornsey (<i>Borough</i>) ..	4.73	5	96	232	45	33	—	—	3	3	—	—	—	6	0.06

Taking the County as a whole there was a considerable increase in the actual number of cases as well as in the case rate during 1906. On looking at the chart of notifications given on page 132 it will be seen that in 1905 the number of cases increased, as usually occurs, in the last quarter of the year. This increase was practically maintained during the first three quarters of 1906, and was followed by a further increase in the fourth quarter. It is also noticeable that during the seventeenth week in the second quarter there took place a well marked rise in the notifications. This was largely due to an outburst in Edmonton and Tottenham, inquiry into which at the time tended to show that the undue number of cases was in all probability brought about by contaminated milk.

The details relating to this outburst are as follows:—

Attention was specially directed to the matter by a communication at the end of April from Dr. MacFadden, the then medical officer of health of Edmonton, announcing that a sudden and marked increase had taken place in the number of daily notifications of scarlet fever in the district, and that 16 of these were found to be amongst the customers of a certain retail vendor. This was an unusual occurrence, and it was stated that there was reason to suspect that the milk supply might be associated with the occurrence of the disease. The milk vendor obtained all his milk from a firm of milk contractors (A) in London, and the milk which was supplied to him was obtained from a farmer (B) whose premises are in Staffordshire, and who, it appeared, collects milk from farms situated over an extensive area in Staffordshire and Derbyshire.

On receiving this report, I at once proceeded to make further enquiry and to offer any assistance I could give in the matter. More especially attention was directed to

whether any unusual incidence was noticeable in the districts adjoining Edmonton.

From the information obtained from Dr. Butler-Hogan it appeared that there had also been an increase of scarlet fever notifications in Tottenham on days corresponding with those during which the rise had occurred in Edmonton. As regards the other districts adjoining Edmonton, it was found that there was no unusual amount of notified scarlet fever, except in the case of Enfield, and in this case the increase was explained as being due to personal infection in an institution containing over two hundred children and consequent on some undetected case or cases at an earlier date. There was no suspicion attaching to milk, which was supplied partly by cows belonging to the Institution and partly by an outside vendor who did not get his supply from the source under suspicion.

The increase in scarlet fever in the districts of Edmonton and Tottenham may be judged from the daily notifications, which were as follows :—

Cases notified.

	Edmonton.	Tottenham.	Total.
April 16th M.	1	2	3
„ 17th Tu.	2	1	3
„ 18th W.	1	1	2
„ 19th Th.	1	2	3
„ 20th F.	—	3	3
„ 21st Sat.	5	1	6
„ 22nd S.	2	—	2
„ 23rd M.	—	—	—
„ 24th Tu.	3	8	11
„ 25th W.	5	7	12
„ 26th Th.	10	6	16
„ 27th F.	7	5	12

Cases notified—continued.

	Edmonton.	Tottenham.	Total.
April 28th Sat.	6	2	8
„ 29th S.	—	—	—
„ 30th M.	1	3	4
May 1st Tu.	2	2	4
„ 2nd W.	—	1	1
„ 3rd Th.	3	2	5
„ 4th F.	1	2	3
„ 5th Sat.	—	3	3

It will be seen that the increase which took place, when the two districts are considered together, is most noticeable between April 24th and April 28th inclusive. Suspicion as to milk arose on the 25th inst., when it was found that all the cases notified on that day in Edmonton were amongst customers of the milk vendor referred to above and information was as soon as possible given by the medical officer of health to the milk contractors.

The result of the detailed inquiry was to the effect that of the 59 cases notified during the period April 24-28, in the two districts (viz., 31 cases in Edmonton and 28 cases in Tottenham), 18 of the Edmonton cases received their milk supply from the same vendor and 1 from a retail vendor in Tottenham, both of whom obtained milk from the same contractors (A), whilst 16 of the cases in Tottenham obtained milk from four retail vendors, all of whom also received it from the same contractors. In other words, 35, or 59 per cent. of the cases had milk supplied by the same contractors. As regards the remaining 24 cases there was no evidence which raised suspicion as to association with milk. They appeared to have been supplied from different sources, and nine of the cases, there was reason to think, were caused by contact with other cases of scarlet fever.

Another point to which attention should be drawn, is the occurrence of multiple cases in the same household and at the same time. The 35 cases occurred in 28 houses, and in each of seven houses, or 25 per cent., two inmates were affected and notified as suffering from scarlet fever at the same time.

The facts that the increase in the amount of scarlet fever in these two adjoining districts was *sudden* in character, that a large proportion of the attacks were *simultaneous*, and that in a relatively large proportion of houses *multiple* cases occurred at the same time, and therefore not due to spread of the infection from one inmate to another, are strongly in support of the suspicion which arose, that the common milk supply of the affected households had association with the disease, and justify the course which was taken, since if any good is to be done in such cases, it is necessary to take action promptly.

As soon as I became aware of the matter, I called upon the milk contractors (A) in company with the medical officer of the London County Council and the local medical officer of health of the district in which their premises are situated. They were good enough to give us such information as they could regarding the milk which they had supplied to the two districts of Edmonton and Tottenham, and they further assured me that they had ceased sending any more of it into Middlesex after Thursday, April 26th, when they received information from the medical officer of Edmonton that suspicion attached to this milk supply. Shortly after this date the number of cases notified began to decrease. Communication was also made with the county medical officers of Staffordshire and Derbyshire, with a view to seeing whether any light could

be thrown on the matter, and as it appeared from a weekly return of notifications, which is received from the Local Government Board, that an increase of scarlet fever had just previously occurred in a certain town, which is in the vicinity of the farms from which the milk was obtained, a letter was also written to the medical officer of this town. No definite information was, however, forthcoming.

Apart from the outbreak in the two above-mentioned districts scarlet fever was prevalent to an extent greater than in the County as a whole, in the following districts, namely, Brentford, Enfield, Feltham, Finchley, Hampton Wick, Hanwell, Hendon (urban), Hornsey, Southall-Norwood, Willesden, Wood Green and Uxbridge (rural).

In his report on Acton, Dr. Thomas directs attention to the influence played in the spread of scarlet fever by persons suffering from the disease in so mild a form that they have not been known to be suffering from it until later in the illness, when the occurrence of other cases of greater severity has been notified and upon inquiry a previous "missed" case has been discovered. He quotes several instances, in one of which this was found to be the origin of an outbreak in an elementary school. In regard to Brentford and Enfield no details are given. In the case of Feltham, Dr. Morris states that cases commenced in December of the previous year and continued into January and February. During the year I visited schools in the district with Dr. Morris and examined children with a view to discovering any who might have had the disease in a mild form and not come under medical care.

In Finchley scarlet fever was prevalent throughout the year and Dr. Taylor states many of the cases were of a much more severe character than has been the case for

several years. In connection with secondary cases he notes that several occurred just after the return of the first case from hospital and that in nearly all these instances evidence was found of nasal or ear discharge having recurred shortly after the patient had returned home.

In Hampton Wick an outbreak occurred in September, and eighteen cases were notified between September 15th and the end of the month, and on the 24th Dr. Günther advised the closure of the elementary schools for a period of six weeks. Cases, however, continued to occur, and during October there were fourteen, and up to the 18th November, six cases. The disease was of a mild type, and it is thought to have been started by infection in school.

During 1905 scarlet fever was very prevalent in Hanwell. This year the number of cases was much less.

In Hendon (urban), Mill Hill had a much greater incidence of the disease than usual, and this, Dr. Andrew reports, was chiefly due to an epidemic at the Grammar School.

In Ruislip-Northwood there was an increase in the number of cases, which led to closure of the schools. On reopening, all the returning children were medically examined by Dr. Hignett and myself with a view to detecting any who showed suspicious signs.

In Southall-Norwood the number of cases was much in excess of that for 1905. Personal infection, and especially owing to the existence of persons suffering from the disease in an unrecognized form and mixing with others appears to have been the main cause. In this district also the schools were visited by me and the children examined in conjunction with Dr. Windle, who quotes several instances of children found to be "peeling" while attending school.

In Uxbridge (rural) an outbreak occurred in Yiewsley. There appears to have been no reason to suspect milk as a source of infection, and Dr. Charpentier states that he examined the school children and “found one desquamating and one suspicious case, both of which were excluded. The cases abated for a time, but broke out again, and it was necessary to advise the closing of the schools.” After this, spread of the disease stopped. Cases also occurred in Harefield.

DIPHTHERIA AND MEMBRANOUS CROUP.

Diphtheria and membranous croup accounted for 1,498 notifications during 1906, of these 25 were certified as membranous croup.

The notifications give a case rate of 1·48 per 1,000 as compared with the average of 1·57 in the previous five years.

The corrected deaths were 141, or a death-rate of 0·139 per 1,000, which also compares favourably with the average rate, viz., 0·182.

The figures and the various rates of the last few years are given in the following table:—

Diphtheria and Membranous Croup.

Year.	Cases.	Corrected deaths.	Case rate	Death-rate	Case mortality per cent.
			Per 1,000 living.		
1901	1462	181	1·84	0·228	12·3
1902	1495	218	1·79	0·261	14·5
1903	1145	132	1·29	0·148	11·5
1904	1480	139	1·59	0·149	9·3
1905	1361	134	1·40	0·138	9·8
<i>Average 1901-1905 ..</i>			<i>1·57</i>	<i>0·182</i>	<i>11·6</i>
1906	1498	141	1·48	0·139	9·3

For the purpose of comparison, the following are quoted from the figures given by the Registrar-General in his Annual Summary, as to other places. The death-rate from diphtheria per 1,000 persons during 1906 was, in London, 0·15; in 76 Great Towns, 0·19; in 142 Smaller Towns, 0·17; and in England and Wales, 0·17. It will thus be seen that Middlesex compares favourably with these.

The age distribution of the cases and deaths during 1906 was as follows:—

*Diphtheria and Membranous Croup, Age Distribution.**

Age group.	Cases.	Corrected deaths.	Case mortality per cent.
0—	17	6	35·2
1—	446	72	16·1
5—	768	57	7·4
15—	123	2	1·6
25—	143	3	2·0
65 and up	1	1	100·0

* In the reports relating to Enfield and Uxbridge (rural) the number of cases in each age group is not given, and it has been necessary to distribute them in the proportion which obtains in the rest of the County.

The above table shows clearly how much more fatal the disease is amongst children under five years of age.

In the following Table the notifications and the deaths *recorded* in each district report together with the case and death-rates per 1,000 living are set out in detail:—

No cases were reported in Greenford, Hampton Wick or Kingsbury. Cases occurred in greater proportion than in the County as a whole in the following districts, namely, Brentford in which the incidence of the disease was greatest, in Ealing a district which adjoins Brentford, in Edmonton, Hanwell, Hayes, Heston and Isleworth, Hornsey, Southall-Norwood, Sunbury, Uxbridge (urban), Willesden, Wood Green and South Mimms.

In the report on Brentford it is stated that the disease was epidemic throughout the year and was attended by a considerable number of deaths. Attention is directed to the advantage of early treatment with antitoxin and to the fact that it is supplied to all medical men free of cost for use in the district. In Ealing, closure of school departments was resorted to, and this, it is stated, checked the spread of the disease. In Edmonton, during November and December, an increase in the notifications took place, and there was reason to think that aggregation in school played part in the spread of infection. In Heston and Isleworth, although the incidence of diphtheria was greater than that in the County as a whole, it was markedly less than in the district during 1905, namely, 63 cases as compared with 105. In Hornsey and Southall-Norwood respectively, the number of cases was about the same as in 1905. As regards Sunbury no details are given as to the cases. Dr. Lock states that in only a few instances could the cases which occurred in Uxbridge (urban) district be traced to previous cases, and draws attention to the risk of infection from undetected mild cases, and to the need for the exercise of care on the part of parents in all cases of sore throat amongst children. In Wembley, cases

occurred during August, and difficulty arose owing to the absence of isolation accommodation for diphtheria. Application was made to have the patients admitted to the Willesden Isolation Hospital but this was full, and they had to be nursed at home. In order to meet the difficulty the Wembley District Council sanctioned the expenditure of a small payment for an untrained nurse and no fresh cases occurred. In his report on Willesden, Dr. Butler states that the incidence rate of diphtheria was less than the mean rate of the period during which the disease has been notifiable in the district. He points out that the disease showed the highest incidence in the lower lying parts of what is known as the Brent area, and most markedly in houses with interceptors. In reference to this matter it will be well to quote fully Dr. Butler's remarks which are as follows:—

In my evidence at a Local Government Board enquiry into the value of the intercepting trap, I pointed out how this incidence was much greater on houses provided with interceptors than on the older houses where the drains were not disconnected from the sewers. I also showed that in the lower lying parts of the district drains with interceptors were more liable to blockage or to provide ventilation to the sewers beneath the windows of the houses where the cap of the raking arm had been displaced. . . . I suggested, and I still think, that a casual relationship exists between exposure of young children to the emanations of sewage gases and the incidence of diphtheria; and I state as a fact that the intercepting trap and the drain ventilator, wrongly known as an inlet, is a device that effects this exposure to an infinitely greater degree than even faulty drainage of an older type.

ENTERIC FEVER.

The cases of enteric or typhoid fever notified in the whole County numbered 386, which is equivalent to a case rate per 1,000 persons living of 0·38. This is a higher rate than any since 1903, and is largely due to an outbreak in New Southgate which will be referred to later, but the rate is lower than the average rate for the previous five years.

Enteric Fever.

Year.	Cases.	Deaths corrected.	Case rate.	Death-rate.	Case mortality per cent.
			Per 1,000 persons living.		
1901	482	86	0·60	0·108	17·3
1902	575	106	0·69	0·127	18·4
1903	356	51	0·40	0·057	14·2
1904	302	46	0·32	0·050	15·2
1905	281	51	0·28	0·052	18·1
<i>Average, 1901–1905 ..</i>			<i>0·45</i>	<i>0·077</i>	<i>17·0</i>
1906	386	52	0·38	0·051	13·5

The above table shows the case and death-rate per 1,000 persons living and the mortality rate per cent. of cases notified, and it will be noticed that in each of these the year compares favourably with the average.

The age distribution of the cases notified and of the corrected deaths, is shown in the following.—

Enteric Fever, Age Distribution.

Age group.	Cases.	Corrected deaths.	Case mortality per cent.
0-	—	—	—
1-	22	1	4·5
5-	111	14	12·6
15-	105	14	13·3
25-	144	23	15·9
65 and upwards.	4	—	—

The number of cases of typhoid fever notified and the deaths *recorded* in each district are, together with the rates per 1,000, set out in the following table, from which it will be seen, that with the exception of three, the case rate was not excessive in any district and was below 0·5 per 1,000, whilst in Southgate, Friern Barnet and Hampton Wick, it was above 1 per 1,000.

	Case rate per 1,000 Living.	CASES NOTIFIED.						DEATHS RECORDED.						Death-rate per 1,000 Living.
		All Ages.	Under 15.	15-25.	25-65.	65 and up.	Under 15.	15-25.	25-65.	65 and up.	All Ages.			
URBAN.														
Acton	0·23	12	—	3	5	1	—	1	2	—	—	3	0·05	
Brentford	0·31	5	1	1	2	—	—	—	—	1	—	1	0·06	
Chiswick	0·20	7	—	4	2	—	—	—	1	—	—	1	0·02	
Ealing (<i>Borough</i>)	0·14	7	—	1	2	—	—	—	—	—	—	—	—	
Edmonton	0·44	25	—	4	9	—	—	—	1	3	—	7	0·12	
Enfield	0·45	24	—	—	—	—	—	—	1	1	—	2	0·03	
Feltham	—	—	—	—	—	—	—	—	—	—	—	—	—	
Finchley	0·35	11	—	6	2	—	—	—	—	—	—	—	—	
Friern Barnet	1·03	11	—	6	4	—	—	—	—	1	—	1	0·09	
Greenford	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hampton	0·11	1	—	—	—	1	—	—	—	—	—	—	—	
Hampton Wick	1·90	5	—	3	—	—	—	—	—	2	—	2	0·76	
Hanwell	0·20	4	—	1	1	—	—	—	—	1	—	1	0·05	
Harrow	0·29	4	—	1	3	—	—	—	—	1	—	2	0·14	
Hayes	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hendon	0·21	6	—	—	5	—	—	—	1	—	—	1	0·03	

No cases were notified in Feltham, Greenford, Hayes, Kingsbury, Ruislip-Northwood, Staines (urban), Wealdstone, Wembley, or South Mimms. Several other districts had but one or a few cases each, and it was not possible to get information indicating the mode in which in all probability infection had been contracted.

In seven instances the disease occurred in persons shortly after either arriving in or returning to the County, and there is little doubt, taking into consideration the incubation period of the disease, that infection was contracted elsewhere.

The consumption of shell-fish as a cause is indicated in 15 cases.

Before referring to the three districts, viz., Hampton Wick, Friern Barnet and Southgate, in which the case rate was unusually high, the following remarks in the annual reports may be noted.

In the case of Edmonton, the medical officer of health states that the 25 cases occurred in 22 separate houses. Of these eight were habitual consumers of shell-fish, and had partaken of this form of diet at a date that admitted its being regarded as a possible source of infection. Two patients had eaten fried fish and two watercress under similar circumstances. In the report on Finchley Dr. Taylor states that inquiry into the 11 cases which occurred failed to elicit any information as to the likely source of infection. The one case which occurred in Hampton is said to have contracted the disease while on the Continent, and the same is stated in regard to one case in Hendon rural district.

In the case of Southall-Norwood one case was regarded as due to water supplied from a polluted well, and in four others personal infection and insanitary and dirty condition of premises probably had influence. In this district five cases notified were afterwards regarded as not suffering from typhoid fever. Shell-fish is mentioned as being the probable source in one case in Teddington and six cases in Tottenham. In the last named district three other cases are said to have been due to personal infection and three others were contracted outside the district.

The possibility of direct or indirect infection from another person suffering from the complaint in a form so mild or obscure as not to have been recognised during the illness is suggested by Dr. Butler in connection with a group of cases which occurred in the district of Willesden, particulars of which are given in his report for the third quarter of the year. During September a small localised group of cases occurred in the western part of the district. The two cases first notified, namely, on September 4th and 5th respectively, were boys who had been bathing in the Canal "feeder," which comes from the Brent Reservoir at the Welsh Harp. About a fortnight after this two further cases were notified from houses abutting upon this "feeder," and suspicion arose as to the possibility that infection had been derived from the water of the "feeder," in view of the fact that the River Brent, just above the Reservoir, receives the effluent from the Hendon sewage works, and inquiry was instituted in this direction, but the further facts obtained, it is stated, threw another light on the matter, which I give in the following quotation from Dr. Butler's report. It is necessary to preface

this quotation with the fact that the first case referred to above was a boy—W. B., aged 13, living at 24, Queen's Road.

“At this stage of the investigation, however, the cause of the outbreak suddenly assumed another complexion. Dr. Dudfield, the Medical Officer of Health of Paddington, in investigating an outbreak of typhoid fever at the . . . Hospital, was led to suspect that it had been introduced by a patient, A. F., admitted to the hospital with pneumonia on August 21st .

A. F. came from No. 24, Queen's Road, Willesden. Enquiry along the lines suggested by this new fact revealed the following history. A. F., aged 2 years, with her brother, S. F., were brought to . . . Home, Paddington, from West Ham, on the 31st July, and the same day handed over to Mrs. B., foster mother, 24, Queen's Road. Both children were certified by a medical man to have been in good health on this day. A. F., however, was noticed by Mrs. B. to have been ailing very soon after coming under her care. On the 14th August she was taken to . . . Hospital, and admitted there on the 21st August suffering from pneumonia. In the light of subsequent events this pneumonia was without doubt a complication of an unsuspected attack of typhoid fever. A. F.'s mother, it was ascertained, had died on the 20th June, the cause of death being ascribed to pneumonia, but an enquiry by the Medical Officer of Health of West Ham has brought to light facts which leave little doubt that the pneumonia was but a complication of a malignant attack of typhoid fever. A. F. appears to have derived her attack from that of her mother, and to have introduced it first into the household at 24, Queen's Road, where no fewer than five persons were ultimately ascertained to have suffered from the disease. Two other houses in Queen's Road, and two in Barry Road, apparently derived their infection, directly or indirectly, from No. 24, Queen's Road, and it is

COUNTY OF MIDDLESEX.

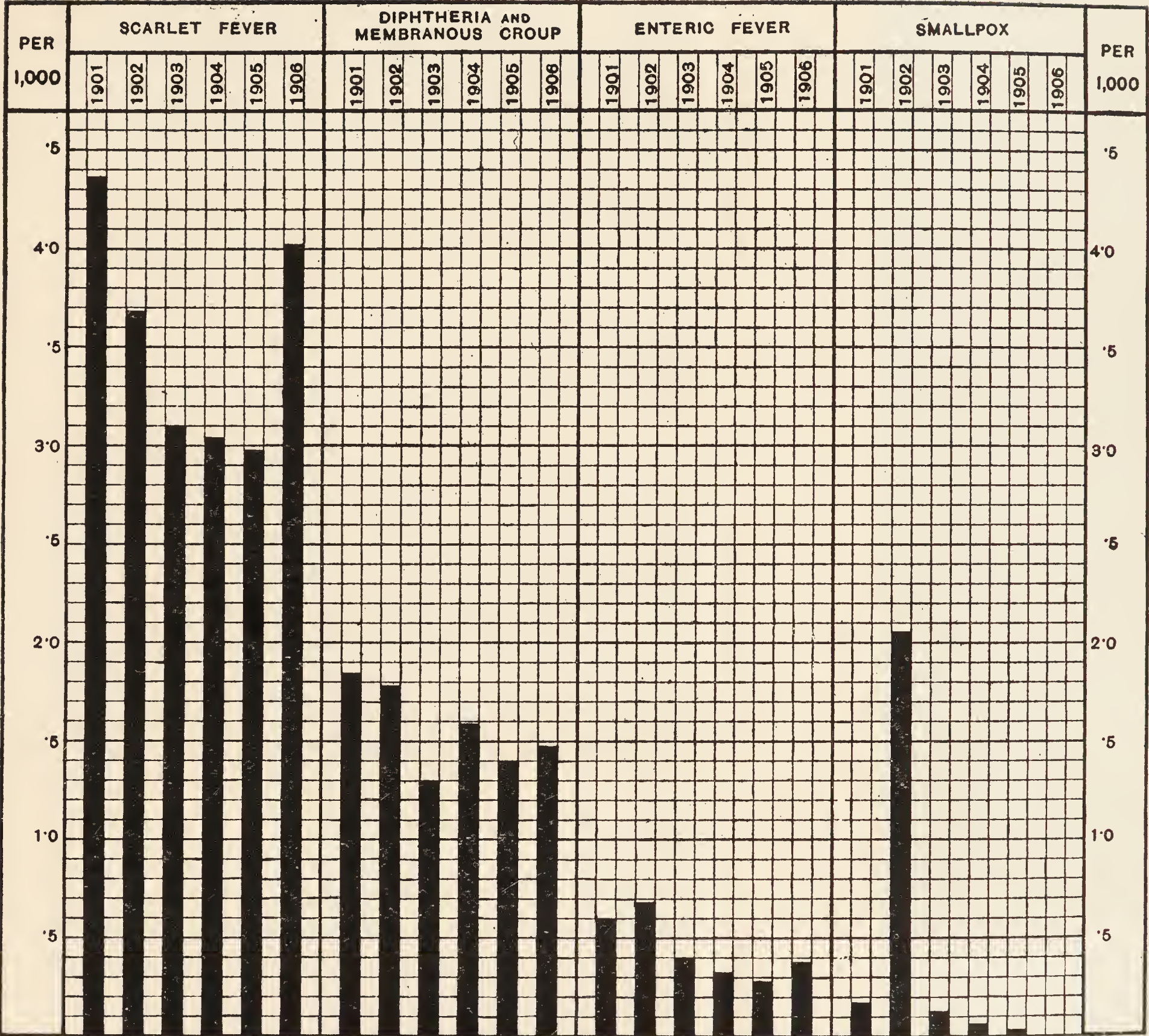


DIAGRAM 5,
SHOWING CASE RATE PER 1,000 PERSONS LIVING
OF CERTAIN NOTIFIED DISEASES.

not impossible that the cases in Milton and Carlyle Avenues derived from the same source, although it must be admitted that no communication between the houses can be traced.

A. F. was in . . . Hospital from the 21st August to 1st September, when she was removed to the Convalescent Home at S——. The patient occupying the bed next to A. F., and the one occupying the bed beyond, together with the probationer nurse in attendance, all sickened with enteric fever between the 8th and 15th September.

On the 14th, 17th, and 23rd September respectively, three patients, with whom A. F. had been in contact at S——, also sickened with the disease. Not until after the occurrence of these cases was the infectious character of A. F.'s illness discovered."

Reverting now to those three districts in which the case rate of typhoid was unusually large during 1906, namely, Hampton Wick, Friern Barnet, and Southgate, it is found that in Hampton Wick there were in all but five cases, and it is owing to the fact that this is a small district with a population under 3,000 that the rate is unusually high. No definite source of infection could be traced. Two of the cases occurred in one house. One case was that of a girl who had just arrived from India, and who was ill when she landed.

In the case of Friern Barnet, one case occurred in the London County Asylum in June. Of the remaining 10 cases one is said to have been contracted outside the district; "the patient returned home ill from a circular tour during which he had eaten shell-fish."

The other nine cases were associated, as regards time and locality, with the outbreak in Southgate, and five of these occurred in two houses.

The outbreak of typhoid fever which occurred in New Southgate was the subject of a special report by Dr. Ransome, which is practically reproduced in his annual report. In presenting his report to the Committee in February, 1907, I wrote as follows:—

In presenting this report, which deals in detail with the subject, I have nothing to add to the facts there set out, as during the course of the outbreak I was constantly associated with Dr. Ransome, and the result of the inquiries then made are set out in his report.

When my attention was first directed, by the weekly returns of the number of notifications sent to the Council by the local medical officers of health, to the increase of enteric fever in New Southgate, the possibility that the disease might be connected with the water supply was thought of, owing to the fact that diversions of the water main supplying this district had been and were at the time taking place along Bounds Green Road. This possibility that water might have influence appeared the more likely for the following reason:—

The district, known by the name of New Southgate, consists of an area of houses around New Southgate Station and situated partly in the district of Southgate and partly in that of Friern Barnet. These two parts of the district have separate water supplies, and the noticeable increase which was taking place in the disease was limited to that portion within the boundary of Southgate. Steps were accordingly at once taken for examination of the water supply. Samples were taken by the local officials, and I communicated with the Metropolitan Water Board

and had an interview with the Director of Water Examinations, and samples were at once obtained by the Board and examined both chemically and bacteriologically. The result of these examinations was entirely negative, and the further course of the outbreak sufficed to remove suspicion that infection was water-borne.

In the meantime attention was being devoted to the question of the milk supply, and suspicion fell on a certain milk retailer, whose premises are situated in New Southgate, owing to the fact that an undue number of cases appeared to be occurring amongst his customers, and moreover, three cases had been notified in that portion of New Southgate situated within Friern Barnet, amongst persons who had consumed milk obtained from the same retailer. Inspection was accordingly made of the premises of this retailer by the medical officer of health, both of Friern Barnet and Southgate, as well as myself, and also of the premises of the contractor from whom the milk supplied by the retailer was obtained. So far as both the premises and the methods of conducting the milk business are concerned but little fault could be found, and in fairness it may be said they were found to be distinctly above the average. No evidence was obtained of any illness amongst those engaged in the business. No precise information could be obtained as to the milk of any one farm being supplied to any one retailer, indeed, the milk appeared to be all mixed in a large utensil at the contractor's premises, whence it was drawn by several retail vendors, as well as by the contractor himself in his retail business, and distributed over an extensive area where increase of enteric fever was not taking place. Part of the area is situated in the County of Hertfordshire, and as

three cases of enteric fever were notified in the East Barnet Valley District I made inquiry of the county medical officer, Dr. Fremantle. In none of these does it appear that milk was obtained from any of the retailers referred to above, but it was ascertained that two of the patients worked at New Southgate, and the third spent much of his time there in his brother's house.

From the evidence which was obtained there is no reason to think that the milk as distributed from the contractor's premises has had cause in the outbreak. It remains to consider to what extent the facts justify suspicion of the milk, after it had passed through the hands of the local retailer residing in New Southgate having infective properties.

At 41 per cent. of the houses affected the information obtained was to the effect that milk supplied by this retailer had been consumed. But it is necessary to state that this included not only his regular customers, but also others who apparently dealt with him occasionally, only, as they do not appear on his list of customers, and some of them stated they used the milk of other vendors or tinned milk as well. If consideration be limited to the houses affected amongst his regular customers the proportion is only 16 per cent.

The exact number of inhabited houses in New Southgate is not known, but assuming that the proportion of persons per house is about the same as for the whole district of Southgate at the date of the last census, the number may be assumed to be about 800.

On this assumption the proportion of affected houses to total houses in this area is 5·4 per cent., whereas the proportion of houses affected to the total houses supplied in this area by this retailer is either 6·7 per cent., excluding any but regular customers, or 16 per cent. including all occasional customers.

On the other hand this retailer supplies a large number of houses outside this area, in which there is no unusual incidence of the disease; again, there is no unusual incidence of simultaneous, or even of multiple, attacks in houses supplied with this milk; the houses affected are of a poor class where milk is consumed in relatively small quantities; the age constitution is not indicative of milk as a marked source of infection, and finally as regards somewhat more than half the households affected this milk cannot be held accountable, as they were supplied either by other vendors whom on enquiry were found to get their milk from entirely different sources, or else used tin milk, and in a few instances goats' milk. On the whole it does not appear possible to regard this as a milk outbreak, though perhaps there is a suspicion that it may have played part in extension of the disease.

Judged by the weekly totals of notifications, this outbreak displays an explosive character, which is usually associated with infection by water, milk or other food. If, however, the cases be arranged in weekly totals, according to the dates of attack as ascertained by inquiry at the time, and especially if the cases be differentiated

into primary and secondary attacks in houses, it loses to a considerable extent this explosive character, thus—

Week ended			Notifications in special area in each week.	Attacks in special area in each week.	
				Primary Cases.	Secondary Cases.
Aug. 18	..	..	—	2	—
„ 25	..	..	—	3	—
Sept. 1	..	..	1	6	—
„ 8	..	..	7	6	—
„ 15	..	..	4	8	3
„ 22	..	..	8	12	5
„ 29	..	..	21	5	3
Oct. 6	..	..	7	1	2
„ 13	..	..	12	1	2
„ 20	..	..	5	1	3
„ 27	..	..	1	1	1
Nov. 3	..	..	2	—	3
„ 10	..	..	2	—	2
„ 17	..	..	2	—	1
„ 24	..	..	1	—	—

A noticeable feature of the outbreak is the marked localisation of the houses affected—except as regards a few instances—to the lower end of the High Street (close to where Bounds Green Brook crosses under the road), and to the few short streets which lead off it on either side, and especially to two short streets, both culs-de-sac, on the south-west side. This fact does not favour a hypothesis of infection by water when this is part of a public supply and not from a local well, or by an article of food, such as milk. It might, however, support suspicion in regard to

food such as fried fish, and owing to the fact that there is in this part of the High Road a small shop where fried fish is supplied, attention was specially directed to obtaining evidence as to its consumption by those affected, but the facts do not appear sufficiently strong to warrant the suggestion that this was the cause of the outbreak. As regards shell fish, no incriminating evidence was obtained. Nor does it seem possible to connect the occurrence of the disease with conditions of sewerage.

Dr. Ransome also refers to the question of infection having been contracted by children paddling and playing in Bounds Green Brook, which receives, a very short distance higher up, namely, on the other side of the Great Northern Railway line, the effluent from Friern Barnet sewage works. The effluent from the sewage works of Finchley also discharges into a branch of this brook some distance further up, and there seems possibility that infection may have been derived in this way by six children in the early part of the outbreak. It is noteworthy as regards these cases, that the question of milk supply does not enter, as most of them were said to have used tinned milk, and that two of them were simultaneously attacked.

The conclusion at which Dr. Ransome arrives after reviewing the whole of the circumstances, namely, that infection directly or indirectly from one case to another played the most considerable part in the spread of infection best explains, I think, the extensive prevalence of the disease. Although the cases when they were notified were soon after removed to hospital, there is evidence that many patients throughout the outbreak were going about

or still at home for a considerable period after they had already commenced to suffer from the complaint, and were in an infective condition. Thus in seven cases the date of attack appears to have been fourteen days previous to notification, in one case seventeen days, in three cases twenty days, in four cases twenty-one days, and in two cases twenty-seven and twenty-eight days respectively. Further, it may be noted here that some short time previous to the beginning of the outbreak, viz., on 29th May, a case of enteric fever was notified from one of the streets in New Southgate in the person of a child, who on inquiry it was found had been ill since the middle of April. The persons affected were all living within a very limited area, and under the circumstances it appears there were many opportunities of local spread from person to person or from one house to another.

As regards this Dr. Ransome writes—“The class of person inhabiting the infected area are of the poorer working classes, for the most part dirty in their habits and houses, and with a somewhat high average number of persons per house compared with the rest of the district. They are frequently in and out of each other’s houses, thus favouring direct and indirect infection. They are of a class which takes little notice of illness and indisposition until it assumes an acute form and who do not think much about the possibility of any illness being an infectious one unless accompanied by a marked and obvious rash.”

In this outbreak these opportunities were, I think, much increased by the plague of flies which prevailed. The extent of the presence of these insects in this part of the

COUNTY OF MIDDLESEX.

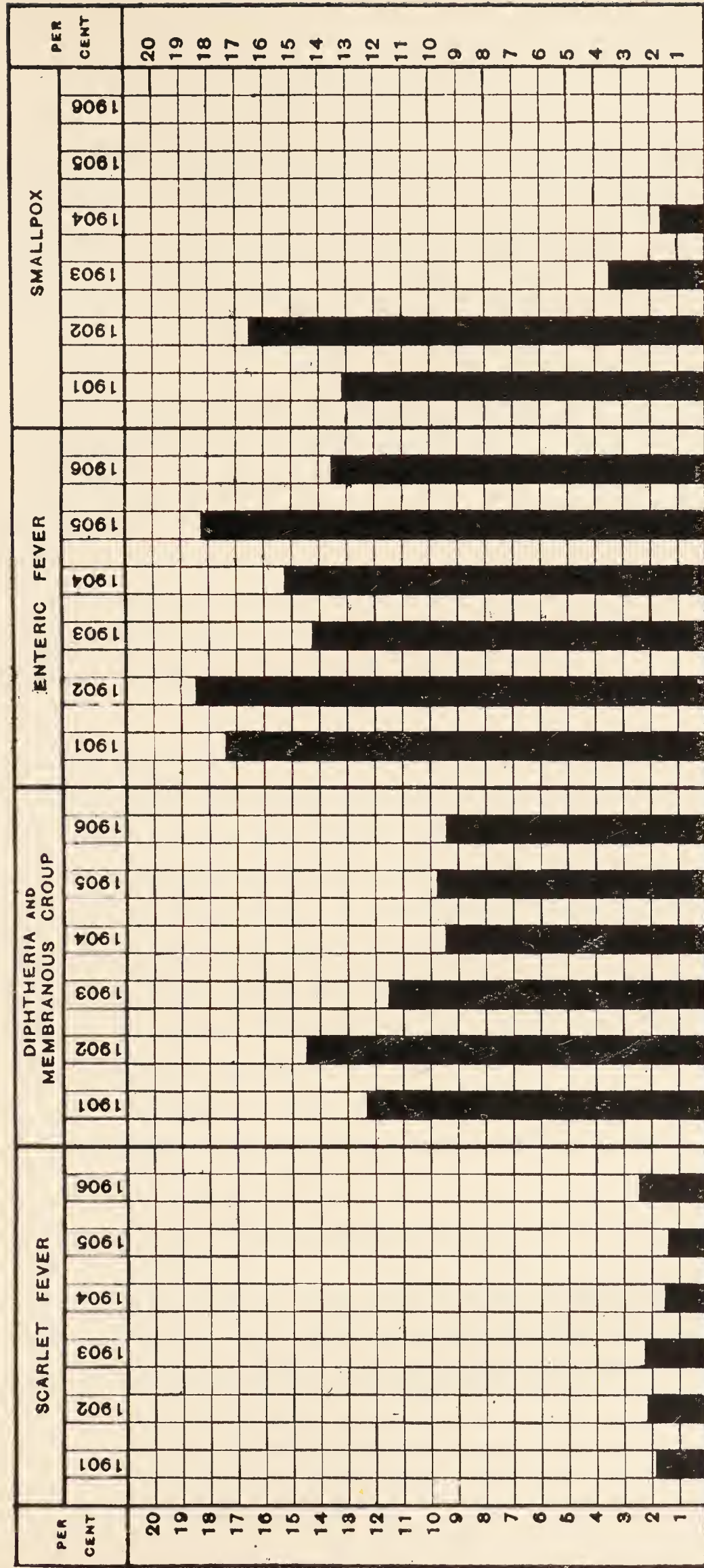


DIAGRAM 6, SHOWING MORTALITY PER CENT. OF CASES NOTIFIED.

district, and especially down at the lower part of the High Road and the streets just off it, was quite unusual in my experience, and it is highly probable that under the circumstances mentioned above, they played considerable part in conveying infection from one case to another.

There was special reason for the unusual number of flies in this neighbourhood, namely the presence of an extensive accumulation of house refuse which had been deposited here, and practically all the houses affected were within 300 yards of this accumulation. The deposit of refuse had been stopped and covered over with earth a few months earlier in the year owing to action by the Southgate District Council and the County Council.

At the time when the greatest number of notifications of enteric fever was being received, it was noticeable from the weekly returns that slight increase was also taking place in other districts in the north-east of the County, and especially in Tottenham. I, accordingly, made inquiry of the medical officer of health of this district, as well as of Edmonton, Wood Green and Hornsey, as to the probable cause of the cases. The information which was obtained did not indicate that the cases had connection with those in New Southgate, or that there was common cause in any of the districts to account for the increased prevalence.

PUERPERAL FEVER.

During the year 56 cases were notified as suffering from puerperal fever, and the corrected number of deaths amongst residents of the County registered is 38.

For each of the last six years the cases and deaths (corrected) have been as follows :—

Puerperal Fever.

Year.	Cases notified.	Deaths (corrected).	Case rate per 1,000 Births registered.
1901	35	35	1·5
1902	42	38	1·7
1903	48	37	1·9
1904	56	46	2·1
1905	53	45	2·0
<i>Average 1901-5 </i>			<i>1·8</i>
1906	56	38	2·0

The rates given in this table are calculated upon the number of births registered, or, in other words, upon the number of children born alive. The number of stillbirths not being known it is not possible to bring in the total number of women giving birth to a child, and the rate is therefore rather higher than it would otherwise be. In this connection it may be remarked that from the certified midwives practising in the County the total number of notifications received as to the occurrence of stillbirths in their practices was 87. In addition, 17 notifications were received from midwives as to sending for medical aid on account of stillbirths. So that midwives attended at least 104 cases of stillbirth.

The cases of puerperal fever notified occurred in the following districts :—

Puerperal Fever.

District.						Births.	Cases.
<i>Urban.</i>							
Acton	..	..	..	..	..	1,533	3
Brentford	..	..	..	..	..	476	1
Chiswick	..	..	..	..	..	852	—
Ealing	..	..	..	..	..	1,171	6
Edmonton	..	..	..	..	..	1,881	5
Enfield	..	..	..	..	..	1,334	2
Feltham	..	..	..	..	..	143	—
Finchley	..	..	..	..	..	773	3
Friern Barnet	..	..	..	..	..	291	—
Greenford	..	..	..	..	..	19	—
Hampton	..	..	..	..	..	198	2
Hampton Wick	..	..	..	..	..	40	—
Hanwell	..	..	..	..	..	564	—
Harrow	..	..	..	..	..	327	1
Hayes	..	..	..	..	..	88	—
Hendon	..	..	..	..	..	703	2
Heston and Isleworth	..	..	..	..	..	1,134	1
Hornsey	..	..	..	..	..	1,603	1
Kingsbury	..	..	..	..	..	13	—
Ruislip-Northwood	..	..	..	..	..	119	—
Southall-Norwood	..	..	..	..	..	621	1
Southgate	..	..	..	..	..	562	2
Staines	..	..	..	..	..	171	—
Sunbury	..	..	..	..	..	115	—
Teddington	..	..	..	..	..	438	2
Tottenham	..	..	..	..	..	3,674	7
Twickenham	..	..	..	..	..	811	2
Uxbridge	..	..	..	..	..	253	—
Wealdstone	..	..	..	..	..	303	—
Wembley	..	..	..	..	..	172	—
Willesden	..	..	..	..	..	4,272	9
Wood Green	..	..	..	..	..	1,232	3
<i>Rural.</i>							
Hendon	..	..	..	..	..	205	—
South Mimms	..	..	..	..	..	61	—
Staines	..	..	..	..	..	525	2
Uxbridge	..	..	..	..	..	358	1

From the weekly notification of infectious disease made to the County Council each week by the district medical officers, early information is obtained of all cases of puerperal fever notified, and it is possible to make enquiry as to whether the case is one occurring in the practice of a certified midwife, and whether she has failed to notify to the County Council under the provisions of the rules of the Central Midwives Board. As regards the 56 cases of puerperal fever, in 15 a certified midwife had been in attendance.

TYPHUS, RELAPSING FEVER, CHOLERA.

No cases of any of the above diseases were notified in the County during the year.

ERYSIPELAS.

This disease gave rise to 793 notifications in 1906. The cases in previous years were:—

Erysipelas.

Year.	Cases.	Deaths corrected.
1901	641	27
1902	691	36
1903	591	28
1904	661	42
1905	655	31
1906	793	25

The occurrence of cases notified in the various Districts was as follows:—

Urban.

Acton	35	Ruislip-North-	
Brentford ..	19	wood	2
Chiswick ..	48	Southall-Nor-	
Ealing	36	wood	25
Edmonton ..	78	Southgate ..	17
Enfield	45	Staines	2
Feltham	5	Sunbury	3
Finchley	18	Teddington ..	11
Friern Barnet ..	17	Tottenham ..	92
Greenford ..	1	Twickenham ..	17
Hampton	7	Uxbridge	5
Hampton Wick..	—	Wealdstone ..	9
Hanwell	20	Wembley	4
Harrow	3	Willesden ..	103
Hayes	7	Wood Green ..	36
Hendon	13	<i>Rural.</i>	
Heston and		Hendon	10
Isleworth ..	18	South Mimms ..	3
Hornsey	37	Staines	35
Kingsbury ..	—	Uxbridge	12

CEREBRO-SPINAL FEVER.

Owing to the fact that Cerebro-spinal fever was somewhat prevalent in parts of Ireland and Scotland during 1906, and that a few cases were reported from parts of England, attention was specially directed towards the end of the year and the beginning of 1907 to the possibility of its occurrence in the County. A circular letter was issued on the subject by the Local Government Board on February 20th, 1907, pointing out that it was possible for sanitary authorities to make the disease compulsorily notifiable in their districts should any special circumstances

point to the need of this, and that the Board would be prepared to consider applications for their approval to resolutions of local authorities to extend the provisions of the Infectious Diseases (Notification) Act to this disease for a limited period.

Cerebro-spinal fever was made notifiable in Feltham (urban) and Staines (rural) districts during 1905, for a period of five years. It was also made notifiable in Uxbridge (urban) in October, 1906, for one year, and in several other districts in the County after the completion of 1906.

Up to the end of the year no notifications appear to have been made.

MEASLES.

The corrected number of deaths from this disease belonging to the County was 247, equivalent to a death-rate of 0·24 per 1,000. In the following table are set out the deaths and death-rates of recent years:—

Measles.

Year.	Corrected deaths.	Death-rate per 1,000 persons.
1901	174	0·21
1902	275	0·33
1903	249	0·28
1904	331	0·35
1905	176	0·18
<i>Average 1901-1905</i>		<i>0·27</i>
1906	247	0·24

The 247 deaths occurred at the following age periods, namely, 50 under 1 year, 176 between 1-5, and 21 between 5-15.

Measles has for several years been compulsorily notifiable in the district of Hampton, and during 1906 a severe epidemic occurred in the district and 420 cases were notified. They occurred at the following ages:—

Under 1 year	..	..	..	15
1 year and under 5 years	.		..	207
5 years and under 15 years			..	189
15 years and under 25 years			..	9

This epidemic commenced early in July amongst scholars at an elementary school, which was closed on the advice of the medical officer of health a week before the summer holidays. In October, however, a recrudescence of the disease took place, affecting both Hampton and Hampton Hill, and all the infant departments of the schools in the district were closed for three weeks, and the Sunday schools were also closed for a like period. The compulsory notification of measles has now been discontinued.

In Greenford urban district compulsory notification was adopted in November, 1906.

The notification by school teachers to medical officers of health of the occurrence of cases of measles is carried out in some districts, but in all these the district council is also the Elementary Education Authority. So far as the reports show, this system is in force in Acton, Tottenham and Willesden. In each of these districts female inspectors

or lady health visitors have also been appointed upon the staff of the Public Health Department, and with their assistance the medical officer of health is enabled to make inquiry at the house of each case notified and to take such action in the way of exclusion of other children from school, or the closure of classes or departments as the circumstances of the case indicate would be most likely to prevent spread of the disease and at the same time interfere as little as possible with the work of the school.

As regards other districts it is reported that the disease was not epidemic, or that only few cases occurred, in Brentford, Hanwell, Southall-Norwood and Hendon (rural).

In the following it was prevalent, namely, Chiswick, Friern Barnet, Heston and Isleworth, Twickenham and Wealdstone.

The district council of Edmonton adopted a resolution to the effect "that it is desirable to make measles a compulsorily notifiable disease."

In the report on Finchley it is stated that handbills as to the advisability of seeking medical aid are distributed by the attendance officers at houses known to be affected, and Dr. Fletcher Little (Harrow) recommends that leaflets, indicating the dangers of the disease and the precautions to be taken should be prepared and distributed at infected houses.

The number of notifications which were received from school teachers in the three districts of Acton, Tottenham and Willesden was as follows: In Acton 345 cases were notified and investigated and the ages of these were—

Under 1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	Uncertain
11	21	8	12	55	92	74	36	3	5	28

In reference to the outbreaks of measles, Dr. Thomas writes as follows :

“ The main outbreaks were in South Acton, Rothschild Road and Beaumont Park Schools.

“ The disease first showed itself in the south-western part of the district, and on January 29th thirteen cases were reported from the South Acton Infants’ School. Between January 29th and February 15th sixty-five cases were reported from this school.

“ The infants’ school at Rothschild Road was probably attacked about the same date, though information did not reach the sanitary department of an outbreak at this school until February 2nd. On that date thirty-four cases were reported.

“ Both these schools were closed from February 5th to March 2nd.

“ Roughly speaking the outbreak spread from west to east and the number that occurred north of the Uxbridge Road was small. The attendance at St. Mary’s and the Priory Schools was not appreciably affected, but cases occurred in Beaumont Park School towards the beginning of February. The earliest cases at the latter school were reported on February 8th, and between that date and April 3rd one hundred and fifty cases occurred amongst children attending this school.

“ The school was closed from March 12th to March 23rd. Only six cases were reported amongst children attending the Priory School and all these lived to the south of the High Street. Towards the end of March the outbreak gradually subsided.”

Dr. Thomas gives an interesting history of the occurrence of measles in the district during the last quarter of a century.

In Tottenham notifications were received as to 1,958 cases, and enquiry was made by the health visitors and the medical officer of health. It is suggested that the notifications should be sent directly to the medical officer of health rather than through the medium of the Education Department, so as to save time.

In the case of Willesden, Dr. Wm. Butler reports that the District was relatively free from measles, only 368 cases being notified from the schools, as compared with 1,336 in 1905. The disease occurred chiefly from the end of April to the end of July, with the exception of a school outbreak which occurred in October, and as regards which it is stated "but for the promptitude of the head teacher in notifying before the disease had obtained an extensive hold of the school, it is probable that a much more serious outbreak" might have happened.

Of the cases notified, Dr. Butler writes :—

"Of all the cases coming to knowledge during
" the year, no fewer than 33 per cent. were primary
" cases occurring in the infants' departments, which
" there was reason to believe had contracted the
" disease by school contact.

" To these have to be added 11·7 per cent. of
" primary cases occurring among infants attending
" public elementary schools who were believed to
" have contracted the disease otherwise than by school
" contact.

“ In the boys’, girls’ and mixed departments on
“ the other hand, the primary cases occurring in
“ infected households, and traceable to school contact,
“ constituted only 1·6 per cent. of all the cases.

“ It is noticeable this year that a larger percentage
“ than last, namely, 22·2 per cent., as compared with
“ 10·7 per cent. of primary cases, have occurred among
“ young children not attending school.

“ This is to be expected in a non-epidemic year.
“ The cause of the constantly-recurring epidemics of
“ measles is the aggregation of susceptible children in
“ the infants’ departments. When it does not spread by
“ this means there is a greater relative primary inci-
“ dence upon children not attending school, but the
“ proportions of the epidemic are greatly reduced.”

In last year’s report I referred to the fact that it is in the infants’ department of schools that measles is most likely to spread, owing to the fact that in boys’ and girls’ departments a large proportion of the children are immune as they have already suffered from the complaint, and the bearing which this has as to the action which should be taken by medical officers of health, with a view to preventing the spread of the disease, was indicated.

Closure, when measles has spread amongst a large number of children in a school, is frequently of little use, except, perhaps, in rural districts, in checking the disease. Action for this purpose, needs to be taken in the early stage of the occurrence of the complaint in a class, but in order to do this it is essential that notification of cases should be made by teachers to the medical officer of health, as

otherwise he has no information until the disease has spread to such an extent that the matter becomes one of common knowledge. On a scheme for such notification I reported to the Middlesex Education Committee in the latter part of 1906.

WHOOPING COUGH.

The number of deaths from this disease showed a well marked decrease as compared with 1905. The corrected number was 179, equivalent to a death-rate of 0·17. The average death-rate relating to the previous five years was 0·29 per 1,000 living.

Whooping Cough.

Year.			Deaths (corrected).	Death-rate per 1,000.
1901	..	..	238	0·30
1902	..	..	225	0·27
1903	..	..	363	0·40
1904	..	..	172	0·18
1905	..	..	324	0·33
<i>Average 1901–1905</i>			.. ..	0·29
1906	..	..	179	0·17

The ages at which these deaths occurred in the County were as follows:—

Under 1 year	..	..	..	89 deaths.
1 year and under 5 years	..	..	84	„

It will thus be seen that all but six deaths occurred in children under 5 years of age. In the absence of complete information as to the number of cases of whooping

cough occurring at the various age-groups, it is not possible to deduce any precise conclusions as to the meaning of these figures.

The decreased number of deaths which occurred in the County points to the fact that the disease was not present to any marked extent in the County during the year, and an analysis of the various district reports confirms this supposition. Thus of the thirty-six reports, in the majority either no reference is made to the disease having been prevalent, or else it is definitely stated that cases of whooping cough only occurred to a small extent. In only two reports, namely those relating to Chiswick and Southall-Norwood, is it stated that whooping cough was prevalent during 1906.

In the case of Finchley Dr. Taylor reports that whooping cough was less prevalent than for two years past. He points out that deaths are usually due to lung complications, and that where care is exercised as regards the patient from the onset of the complaint, these complications are usually avoided. In order to direct attention to this fact and to the advisability of seeking medical aid at an early stage, it has been decided to distribute handbills at every house where the school attendance officers learn that a case exists.

Dr. Coates, in his report on Hornsey, states that the deaths were smaller in number than for many years.

Dr. Fletcher Little, in his report on the district of Harrow writes as to the greater number of deaths which occur from non-notifiable infectious complaints, as compared

with the notifiable diseases. He expresses the opinion that much good would accrue by instructing parents and guardians in the precautions which should be taken in connection with whooping cough and measles, and recommends, as he has done in previous annual reports, that leaflets giving the necessary information should be printed and issued when cases come to the information of the officials of the district council. The district of Harrow is one of those included within the Elementary Education area under the control of the County Council, and in connection with the subject it may be pointed out that a valuable means of obtaining information of non-notifiable complaints, such as whooping cough, measles, &c., is notification to the medical officer of health of a district by the teachers of the elementary schools of all such cases coming to their knowledge, owing to the absence of children from school from alleged whooping cough or measles. With a view to making use of such information in the possession of teachers in the Elementary Education County, I drew up at the request of the Education Committee, conveyed to me by the Secretary, a scheme, together with draft forms of notification for the use of the teachers, but up to the end of the year no definite decision had been arrived at for putting it into practice.

In two districts, namely Tottenham and Willesden, the number of cases of whooping cough coming to the knowledge of the Public Health Department was, 178 and 455 respectively. In Willesden 455 cases came to the knowledge of Dr. Butler, chiefly by means of notification from the schools. The heaviest incidence of the disease was in the

late months of the year, and it appears that 34·7 per cent. of the cases were primary cases contracted by school contact in the Infants' Departments.

DIARRHŒA.

The total deaths from diarrhœa belonging to the County in 1906 was 1,106, equal to a death-rate per 1,000 living of 1·09.

The deaths from enteritis are not included in the above total.

In the following table are given the deaths and death-rates for the last few years:—

Diarrhœa.

Year.			Deaths (corrected).	Death rate per 1,000 living.
1901	..	..	723	0·91
1902	..	..	465	0·55
1903	..	..	449	0·50
1904	..	..	1,128	1·21
1905	..	..	547	0·60
<i>Average 1901-1905</i>				0·75
1906	..	..	1,106	1·09

The death-rate from diarrhœa, it will be seen, is the highest but one which has occurred during recent years, and is considerably higher than the average rate of the previous five years. The increase in the number of deaths is almost entirely due to the large number amongst children under one year, as will be seen from the following.

During the above years the number of deaths (corrected) from diarrhœa amongst children under one year of age has been as follows :—

Diarrhœa—Deaths under one year of age.

Year.	Deaths.	Rate per 1,000 births.
1901	600	26·66
1902	385	16·19
1903	346	13·61
1904	922	34·93
1905	453	17·09
<i>Average 1901–1905</i>		<i>21·73</i>
1906	883	32·6

In previous reports attention has been directed to the association of a high rate of death from diarrhœa amongst infants with high temperature and deficient rainfall in the third quarter of the year. It is interesting to record, therefore, that in the Quarterly Return of the Registrar-General, issued on the 26th October, 1906, it is reported that the mean temperature for the third quarter was “in excess of the average, the departure from the normal being greatest (nearly two-and-a-half degrees) in the London district.” “The highest readings were recorded either on August 31st or on September 1st or 2nd, when the thermometer rose to 90° and upwards in most districts, and to 95° in the London district (at Barnet).” During the same period the rainfall was below the average, and in London, it is stated, that it was scarcely equal to 51 per cent. of the average, and that in other parts the deficiency was even greater.

In connection with the association of excessive rainfall and a low death-rate from diarrhœa, Dr. Thomas, in the Acton report, draws attention to the lesson which this suggests, namely, the desirability of frequent watering of the roads and the avoidance, as far as possible, of dry scavenging, as tending to raise dust, which freely finds its way to the interior of houses. He also emphasizes the great importance of keeping yards at the rear of houses clean and free from accumulations of refuse matter. Mention is also made as to the influence which flies probably play during this season of the year in causing diarrhœa by contaminating articles of food. In the latter connection it is necessary to refer to the part which, in all probability, flies had in causing spread of enteric fever in September in New Southgate, and to the fact that at the time when this outbreak occurred diarrhœa was extremely prevalent in this neighbourhood. The plague of flies in this neighbourhood was, in my experience, quite unusual, and the explanation of this is to be found in the fact that a considerable deposit of house refuse had been made in the vicinity. It is true that the shooting of this offensive material had been stopped some months earlier in the year, and that the accumulation was covered over by a layer of earth, but in my opinion this did not prevent the accumulation acting as a breeding ground for flies, from which they were able to spread to the houses in the immediate locality.

In the majority of the reports reference is made to the increase in the number of deaths or cases of summer diarrhœa amongst children during the hot weather of August and September, and whilst this is regarded as having played undoubted influence in the increase,

attention is directed to the action which should be taken with a view to obviating the risks which this causes. Thus, in the reports on Enfield, Hanwell, Hendon (urban) and Southall-Norwood, the advantage which would accrue from the assistance of female health visitors who could visit houses and instruct mothers as to the necessity and importance of domestic cleanliness and the proper feeding and care of infants, is pointed out. In the Harrow report Dr. Fletcher Little writes as to the advisability of obtaining earlier knowledge of the occurrence of births with a view to visitation of the houses and instruction of mothers. In Uxbridge (urban) Dr. Lock has prepared a handbill on the care of infants, and has endeavoured to interest district visitors in the matter. In the reports on those districts where female inspectors are employed, namely, Acton, Edmonton, Tottenham and Willesden, the action taken and the advantages derived are set out.

In connection with the subject of earlier notification of births, to which Dr. Little refers, I would direct attention to the action of the County Council in the endeavour to obtain such early information from certified midwives. This will be found set out in the section dealing with the Midwives Act.

PHTHISIS AND OTHER TUBERCULOUS DISEASE.

The deaths from phthisis were 876, equal to a rate of 0·86 per 1,000 living. If deaths from all forms of tuberculous disease be included the total number is 1,291, or a rate of 1·27 per 1,000 living, which is a slight increase on the rate in the previous year.

The deaths and death-rates since 1901 are set out in the following table :—

Year.	Phthisis.		All Tuberculous Disease.	
	Deaths (corrected).	Death-rate per 1,000 living.	Deaths (corrected).	Death-rate per 1,000 living.
1901	752	0·94	1,139	1·43
1902	843	1·01	1,277	1·53
1903	788	0·88	1,221	1·37
1904	993	1·06	1,428	1·53
1905	858	0·88	1,230	1·12
<i>Average 1901-1905</i>		0·95	—	1·42
1906	876	0·86	1,291	1·27

In the following table the number of deaths from phthisis, or what is commonly known as consumption, and from other forms of tuberculous disease are given separately and in six age groups. From this it will be seen that as regards phthisis the greater number occur after 15 years, whilst as regards other tuberculous complaints the greatest mortality is in the earlier period of life. Unfortunately the figures for shorter age periods between 15-25 and 25-65 years and for the two sexes separately are not available.

*Tuberculous Disease.**Deaths from Tuberculous Disease at different age-groups.*

Age, Group.	1901.		1902.		1903.		1904.		1905.		1906.	
	Phthisis.	Other Tuberculous Disease.	Phthisis.	Other Tuberculous Disease.	Phthisis.	Other Tuberculous Disease.	Phthisis.	Other Tuberculous Disease.	Phthisis.	Other Tuberculous Disease.	Phthisis.	Other Tuberculous Disease.
0-	8	124	15	147	12	149	11	163	7	104	6	114
1-	14	131	18	144	25	143	33	134	19	135	24	141
5-	33	70	22	70	33	57	40	65	28	62	28	66
15-	105	20	132	26	133	31	176	23	136	26	164	36
25-	562	38	623	44	556	51	696	39	632	42	629	51
65 and upwards	30	4	33	3	29	2	37	11	36	3	25	7

A most noteworthy matter in connection with this disease was the issue of the second report of the Royal Commission on Tuberculosis, in January, 1907.* In the County Report for 1904 I referred to the first interim report issued by the Commission, and set out in detail the conclusion which at that date the inquiry had led to, namely "that tubercle of human origin can give rise in the bovine animal to tuberculosis identical with ordinary bovine tuberculosis." It is not necessary here to do more than give the conclusion arrived at in the second report, a copy of which should be obtained and studied by all medical officers of health.

The conclusion arrived at by the Royal Commissioners is as follows:—

"There can be no doubt but that in a certain
"number of cases the tuberculosis occurring in the
"human subject, especially in children, is the direct
"result of the introduction into the human body of the
"bacillus of bovine tuberculosis, and there also can
"be no doubt that in the majority at least of these
"cases the bacillus is introduced through cows' milk.
"Cows' milk containing bovine tubercle bacilli is
"clearly a cause of tuberculosis, and of fatal tubercu-
"losis, in man.

"Of the sixty cases of human tuberculosis investi-
"gated by us, fourteen of the viruses belonged to
"Group 1, that is to say contained the bovine bacillus.
"If instead of taking all these sixty cases we confine
"ourselves to cases of tuberculosis in which the

* Second Interim Report of the Royal Commission appointed to inquire into the relations of Human and Animal Tuberculosis. Printed for H.M. Stationery Office by, and to be obtained from, Wyman & Sons, Ltd., Fetter Lane, E.C. Price 9½d. Cd. 3322.

“ bacilli were apparently introduced into the body by
“ way of the alimentary canal, the proportion of
“ Group 1 becomes very much larger. Of the total
“ sixty cases investigated by us, twenty-eight
“ possessed clinical histories indicating that in them
“ the bacillus was introduced through the alimentary
“ canal. Of these thirteen belong to Group 1. Of
“ the nine cases in which cervical glands were studied
“ by us three, and of the nineteen cases in which the
“ lesions of abdominal tuberculosis were studied by
“ us, ten belong to Group 1.

“ These facts indicate that a very large proportion
“ of tuberculosis contracted by ingestion is due to
“ tubercle bacilli of bovine source.

“ A very considerable amount of disease and loss of
“ life, especially among the young, must be attributed
“ to the consumption of cows' milk containing tubercle
“ bacilli. The presence of tubercle bacilli in cows'
“ milk can be detected, though with some difficulty, if
“ the proper means be adopted, and such milk ought
“ never to be used as food. There is far less difficulty in
“ recognising clinically that a cow is distinctly suffer-
“ ing from tuberculosis, in which case she may be
“ yielding tuberculous milk. The milk coming from
“ such a cow ought not to form part of human food,
“ and indeed ought not to be used as food at all.

“ Our results clearly point to the necessity of
“ measures more stringent than those at present
“ enforced being taken to prevent the sale or the
“ consumption of such milk.”

The chief references in the annual reports to phthisis and tuberculosis are as follows :—

Acton.—Dr. Thomas writes at some length on the subject and points out that the period of greatest risk of infection from patients is in the late stage of the illness, when expectoration is profuse, and although many of these patients are removed to the Workhouse Infirmary during the last few weeks of their lives, he comments on the absence of any special institutions in which they can be isolated at an earlier stage when this would be of advantage as a means of preventing spread of infection. With a view to limiting the risk of infection as far as possible arrangements have been made for obtaining information of the removals to the Workhouse Infirmary in order that disinfection may be carried out in the homes. Disinfection is also urged in all cases of death, but in only seventeen instances was this accepted.

In 1905 the district council adopted voluntary notification of the disease and pay 2s. 6d. for each certificate, but the result has not been satisfactory ; only six notifications were made in 1906. Further, in 1905 three beds were, by arrangement, reserved for the district at Northwood Sanatorium, but only twelve persons during 1906 availed themselves of these and four were in too advanced a state of the disease to benefit from treatment. The difficulty of getting information of cases in the early stages of the disease under existing conditions are indicated.

Chiswick.—Phthisis is voluntarily notifiable, but only one case was notified in 1906. Disinfection of rooms, &c., is carried out if friends desire.

Ealing.—Arrangement has been made for the use of beds in Northwood Sanatorium by incipient cases, and ten patients were admitted during the year. It is stated that several patients who applied were not admitted by the hospital authorities as the condition of the disease was too advanced.

Notification of cases by medical practitioners is invited by the medical officer of health. Disinfection by the Sanitary Authority is carried out after death, if applied for.

Edmonton.—A few voluntary notifications are received yearly. After the occurrence of deaths from consumption the houses are visited with a view to disinfection and the giving of any instructions which may be needed.

Finchley.—A system of voluntary notification has been in force for three years. Seven notifications were received during 1906. Dr. Taylor sets out the further powers which he considers should be possessed by local authorities in order to cope effectually with the disease, as follows:—Compulsory notification; power to insist on efficient isolation either at home or in hospital in special cases when the medical attendant approves; definite powers to insist on cleansing and disinfection of premises, &c.; power to prohibit the following of certain employments; increased powers as to milk.

Hanwell.—On the occurrence of death after consumption, disinfection of the room, &c., of the deceased is offered by the Sanitary Authority, but this is not accepted in all instances.

Harrow.—It is stated that voluntary notification has been a failure in this district.

Hornsey.—Dr. Coates indicates the need there is of sanatorium treatment for incipient cases of consumption, and expresses regret that the efforts to provide this for Middlesex have so far not been successful.

Tottenham.—The medical officer of health notes a steadily decreasing death-rate from phthisis during recent years in the district. All cases coming to knowledge are visited, and verbal and printed instructions as to the precautions which should be taken are given. The compulsory notification of consumption is advocated, and it is reported that a sub-committee is recommending that the district council shall reserve beds by arrangement at Northwood Sanatorium until a more comprehensive and suitable scheme has been formulated.

Twickenham.—Dr. Marston Clark discusses the subject of tuberculosis at some length in the light of the recent report of the Royal Commission referred to above. He further points out the desirability of isolating cases in the advanced state of the disease if this cannot be done at home, and the treatment of early cases in sanatoria, or their

effective supervision at home until this can be attained. In addition, he suggests the voluntary notification of consumption; the examination of milch cows by a veterinary surgeon and the examination of milk; the provision of pocket spittoons; the distribution of leaflets as to precautions to be taken by those suffering from the complaint; and the disinfection of houses. It is to be hoped that these suggestions will be duly considered.

Uxbridge (urban).—Dr. Lock points out that this is the most common cause of death, and expresses the opinion that it is desirable to exercise some form of control over persons suffering from the disease, for which purpose he regards compulsory notification as being necessary. The district council have decided to offer disinfection of rooms, &c., in all cases of death from tuberculosis.

Wealdstone.—In four instances disinfection was carried out after death from phthisis.

Wembley.—Disinfection was carried out in all cases where death occurred from phthisis.

CANCER.

The corrected number of deaths from cancer which occurred amongst residents of the County during 1906 was 836, which is equivalent to a death-rate of 0·82 as compared with an average death-rate of 0·80 during the preceding five years, 1901–1905. The rates for each separate year are given in the following table:—

COUNTY OF MIDDLESEX.

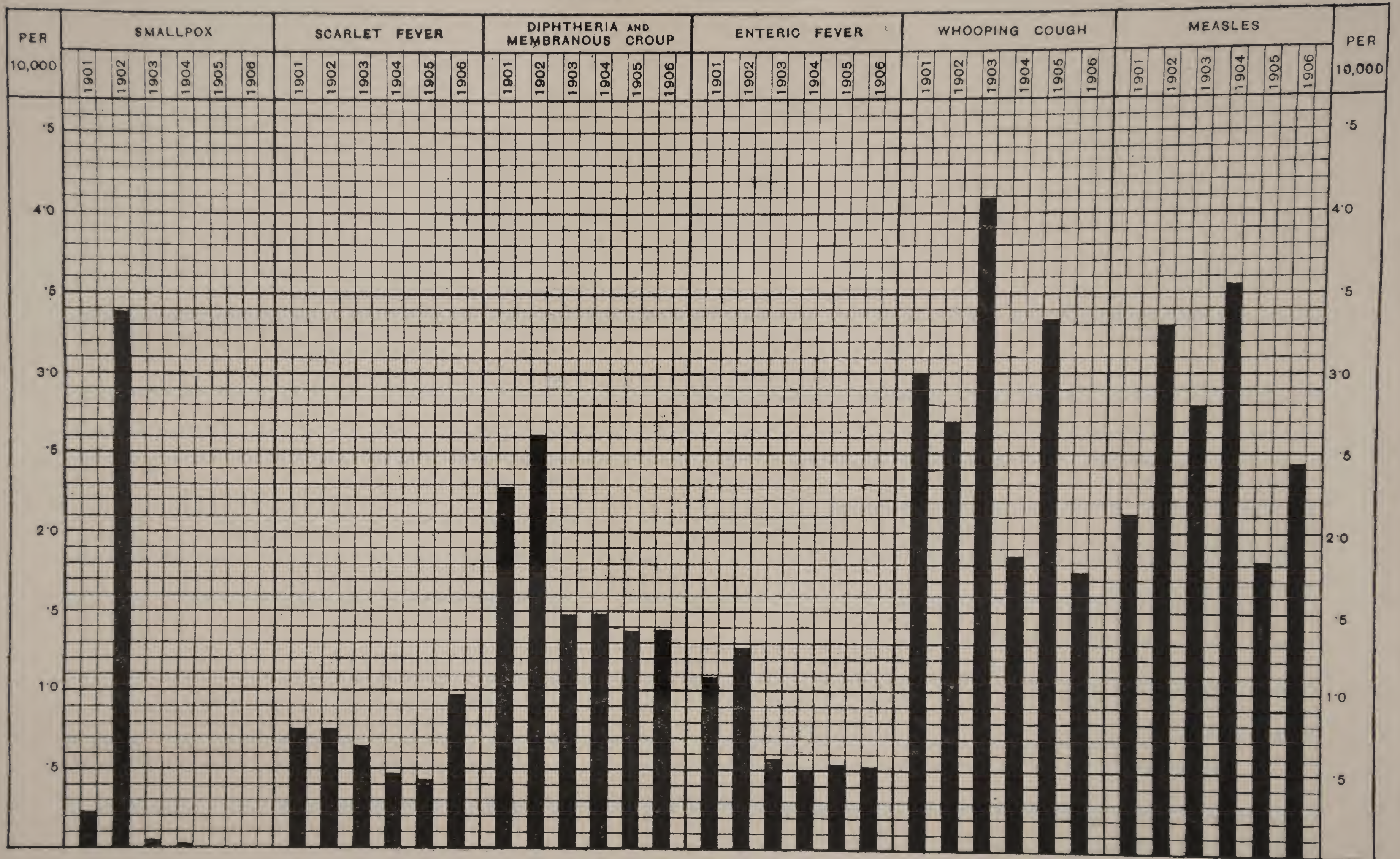


DIAGRAM 7,
SHOWING DEATH-RATES PER 10,000 PERSONS LIVING
FROM CERTAIN INFECTIOUS DISEASES.

Cancer.

Year.	Deaths.	Death-rate per 1,000 living.
1901	642	0·80
1902	665	0·79
1903	731	0·82
1904	712	0·76
1905	788	0·81
<i>Average 1901-1905</i>		<i>0·80</i>
1906	836	0·82

MIDWIVES ACT, 1902.

During the year 1906, the Council appointed an inspector to assist in the administration of this Act, and Miss Pollard, a certified midwife, was chosen for the post, the duties of which are carried out under the supervision of the County Medical Officer of Health. She took up her duties in April. With the aid of an inspector it has been possible to devote to each midwife much more time and attention, especially to those certified midwives who obtained their certificates owing to the fact that they had been in *bona fide* practice for a period of twelve months before the passing of the Act, but who have not had any recognised form of training and do not possess a certificate showing that they have any proficiency in the work. In the course of my visits I found that many of these women had but an elementary knowledge of the meaning of surgical cleanliness, that they did not understand how to use and read a clinical thermometer, and did not fully appreciate

the meaning of the rules which they are required to observe. It appeared necessary, therefore, to devote at each visit a considerable amount of time in instructing them on these matters, as well as in explaining to them how to conduct a case of labour and how to manage the lying-in period with a view to the safety and comfort of the mother and child. This educative work which it has now been possible to take up, has been much appreciated by many of the midwives and has resulted in considerable improvement so far as it is possible to judge from the way in which these women now keep their appliances, enter up their register and answer questions put to them concerning their cases. As an example of this I may quote the case of one woman who could not write and could only read with difficulty, who when visited during the first year of the administration of the Act was usually found in a dirty and untidy condition, who had no idea how to keep her appliances in a cleanly manner and whom it was necessary to caution. She has now got a proper but inexpensive bag with a detachable cover, keeps her appliances and herself in a much more satisfactory condition, and has of her own initiative been attending a night school with a view to writing up the cases herself in her register.

The system which has been adopted for carrying out the work of inspection is as follows:—

Miss Pollard attends at the office as a routine matter twice during the week to discuss any points which may have arisen in the course of inspection, and to assist in making out the records. The rest of the week she devotes to routine inspection, and she forwards each day to the office a report as to the women she has visited, with

remarks as to the result of the inspection. This is done on special report forms drawn up for the purpose. If for any reason stated in the report it appears necessary, I visit the midwife to make further inquiry or ask the inspector to come to the office and see me about the matter, so that I may give her any necessary instruction bearing on the medical aspects of the case. In all cases where a caution as to the conduct of the midwife is necessary, I visit and caution her verbally, and if this is not sufficient, the matter is reported to the Committee so that a letter may be sent.

As regards the appliances which midwives are required to have, I have instructed the inspector that so long as they comply with the rules the simplest and least expensive should be required of the midwives, and especially so as regards the bag in which they carry them. Some midwives have, of their own accord, provided themselves with expensive leather bags, but it appears to me sufficient to have a relatively cheap wicker bag covered inside by the midwife with a linen lining, all of which is readily capable of being washed and cleansed without risk of damage.

At the commencement of the year notice is sent, together with a blank form, to each *certified midwife* known to be carrying on midwifery work, informing her that it is her duty to notify the Council whether it is her intention to practise within the County.

During the year notification to this effect was received from 211 women, residing in the following districts:—

Acton	..	..	9	Ealing	..	..	5
Brentford	..	..	4	Edmonton	..	..	15
Chiswick	..	..	15	Enfield	..	..	14

Feltham 4	Teddington 6
Finchley 2	Tottenham 23
Hampton 2	Twickenham 6
Hanwell 2	Uxbridge (Urban) .. 1
Hendon (Urban) .. 4	Willesden 20
Heston and Isleworth 23	Wood Green 4
Hornsey 10	Hendon (Rural) .. 1
Ruislip-Northwood.. 1	Staines (Rural) .. 13
Southall-Norwood .. 3	Uxbridge (Rural) .. 3
Southgate 3	Living on the borders of and practising in the County .. 11
Staines (Urban) .. 2	Temporary Notifications 2
Sunbury 3	

No notifications have been received from women in the following districts and, as the result of inquiries which have been made, no evidence has been forthcoming that any certified women residing therein are practising:—

Friern Barnet.	Kingsbury.
Greenford.	Wealdstone.
Harrow.	Wembley.
Hayes.	South Mimms.

In addition to the above certified midwives who notified their intention to practise, there were also residing in the County 435 women whose names have been placed on the Roll by the Central Midwives Board, but these women appear for the most part to be working as monthly nurses under the supervision of medical men or in other branches of nursing. When they take cases alone, as occasionally happens, they notify the fact.

As regards *uncertified midwives* the names and addresses have been obtained of 313 women, who are stated to attend cases. They are kept under observation as far as possible,

but attention is specially directed to those who admit that they still actively pursue the work. When they are visited instruction is given them as to the need for cleanliness, and as to the advisability of seeking medical assistance at an early period of the confinement if the midwife is in any doubt as to the satisfactory progress of the case.

In no case was evidence obtained that any of these uncertified women contravene the provisions of Section I of the Act, viz. :—

“ That no uncertified woman shall take or use the
“ name or title of midwife (either alone or in combina-
“ tion with any other word or words), or any name,
“ title, addition, or description implying that she is
“ certified under this Act or is a person specially
“ qualified to practise midwifery.”

From the experience which I have gained in connection with this work, it appears to me that there is no difficulty for a woman to carry on her midwifery work without infringing the above, as usually these persons have lived in the district and attended cases for a number of years past, they are well known in the neighbourhood and they are recommended by one patient to another without any apparent active steps being taken with this object by the midwife herself.

There is reason to think that, partly as a result of supervision, these women are gradually doing less and less midwifery work.

During the year information has been given to me by the coroners in some cases where inquests have been held regarding the deaths of women who had been

attended by uncertified women. At two inquests the jury censured the midwife for neglect of the patient, and both these have decided to give up the work in future.

From the certified women practising in the County the total number of notifications received was 395, relating to the following matters, viz. :—

That medical aid had been sent for	..	..	300
The occurrence of a stillbirth	..	..	87
The death of the child	..	..	8

The reasons for which medical aid was summoned may be classified as follows:—

High Temperature	..	..	29
Prolonged Labour	..	..	64
Retained Placenta	..	..	30
Hæmorrhage	..	..	23
Ruptured Perinæum	..	..	21
Abnormal Presentation	..	..	21
Unsatisfactory Condition—			
(a) of Mother	..	..	25
(b) of Child	..	..	70
Stillbirth	..	..	17

No cases of puerperal fever were notified to the Council under this heading. They are comprised in those notifications relating to medical aid having been sent for, either owing to the presence of high temperature, or unsatisfactory condition of the mother.

Special inquiry into all the notifications is now made. Where the case is not one of urgency or likely to need immediate action by the supervising authority such inquiry

is made during the routine visits to the midwives notifying, but in other cases and especially all those where it is stated there is a rise of temperature the midwife is at once visited, with a view to seeing whether this is due to some septic cause and if so to see that all proper precautions are taken to prevent the spread of infection and that disinfection of the midwife's appliances, &c., is carried out.

From the weekly notifications as to infectious disease sent in by the local medical officers it appears that the total number of cases of puerperal fever which were notified in the County during the year was 56. Of these cases fifteen were attended by certified midwives, two were attended by uncertified midwives, and four by friends who do not profess to attend confinements, but who were called in at the last moment. Two notifications related to women who had been confined in the Union Infirmary of the district. The remainder occurred, so far as information is available, in the practice of medical men.

In several instances during the year it was found that a midwife had failed to send in to the Council notifications which she is required to forward. Most of these were discovered during the routine inspection and examination of the midwives' registers, but in a few and more urgent cases, the failure came to light owing to the fact that the patient had been notified to be suffering from puerperal fever. In these cases the returns go to the local medical officers of health, who at once communicate with me on the subject. In all instances where it appeared necessary, failure to notify has been reported, and by the instructions of the Committee the midwives were cautioned by letter

in 10 instances. Two midwives were temporarily suspended under Section 8 (3), and the fact duly notified to the Central Midwives Board.

Since the appointment of the midwives' inspector it has been possible to investigate the circumstances of still-births notified to the Council. This investigation refers to the notifications received from the beginning of July, in other words, during the last six months of the year. It is noteworthy that during this period 74 such notifications were received out of a total of 87 for the whole twelve months, and there is no doubt that this is due to the more efficient inspection and examination of midwives and their registers since an inspector was appointed.

The information relating to still-births may be summarised as follows :—

Still-births in the practice of Certified Midwives.

Age of Child.	Number notified as stillborn.	Number or macerated or decomposed.	Number occurring in		Previous still births or miscarriages in	Presentation (of 46 cases),			Sex of child. M. F. 65
			First preg-nancy.	Subse-quent preg-nancies.		V.	B.	Other.	
Full Term ..	34	17	1	33	7 cases	23	5	1	13 20
8 months..	12	4	1*	10*	4 "	4	—	3	5 6
7 months..	11	5	1	10	5 "	2	—	2	5 5
6 months..	4	2	—	4	1 "	2	1	—	1 3
Under 6 months..	13	2	2	11	8 "	3	—	—	4 3

* In one case information as to this is wanting.

As regards presentation in cases other than those given in above table, information is wanting as the child was born before arrival of the midwife.

In 2 cases placenta previa complicated the labour.

In one case, namely, a miscarriage at the second or third month, and the second miscarriage within twelve months, there was a suggestion that pills (pennyroyal) had been taken with a view to causing the expulsion of the foetus.

In 10 cases a fall or some injury was alleged as a possible explanation of the still-birth, in 3 a quarrel, and in 2 poverty and worry, whilst in the case of 4 women there was a history of hard work carried on during pregnancy. One mother was said to be suffering from syphilis and 3 from some form of ill health. Intemperance was suggested in 2 cases.

Of the total number of still-births, 5 occurred in the practice of one midwife, 4 each in the practices of three midwives, 3 each in the practices of three midwives, and 2 each in the practices of nine midwives.

The total number of inspections made during 1906 was 1,465.

At the end of 1906, with the sanction of the Committee, it was arranged to obtain from certified midwives a weekly list of the births attended by them, with the addresses at which they occurred. These addresses are then forwarded to the local medical officers of health so that they may have as early notification as

possible of the occurrence of births, with a view to visits being made by the female health visitors to the houses to instruct mothers as to the care of their infants. At present this information is only obtained in those districts in which female inspectors are appointed or in which other means exist whereby the information can be utilised.

ISOLATION HOSPITALS.

This subject has been dealt with exhaustively in the County reports relating to 1905 and 1904, and it will not be necessary this year to do more than set out briefly the conditions existing in each district and to note any alterations which have taken place during 1906.

The subject matter can best be dealt with as regards (1) Isolation hospital provision for the ordinary infectious diseases, viz., scarlet fever, diphtheria and enteric or typhoid fever; and (2) Isolation hospital provision for smallpox. At the end of this section a table is given showing the number of patients removed to hospital.

(1) ISOLATION HOSPITALS FOR THE ORDINARY INFECTIOUS DISEASES.

A summary of the arrangements which have been made by the various district authorities in the County for the isolation of patients suffering from infectious disease, exclusive of smallpox, is as follows:—

- (a) Twenty-one districts have provided isolation hospital accommodation for patients suffering from one or other or all of the diseases known as scarlet fever, diphtheria, and enteric fever.

They are the following :—

Acton,	Hornsey,
Brentford,	Ruislip-Northwood
Chiswick,	(jointly with Uxbridge),
Ealing,	Southall-Norwood,
Edmonton } (jointly),	Southgate,
Enfield }	Twickenham,
Hampton,	Uxbridge (jointly),
Harrow,	Wembley (a cottage),
Hayes (jointly with	Willesden,
Uxbridge),	Hendon (rural),
Hendon (urban),	Uxbridge (rural)
Heston and Isleworth	(jointly).
(jointly with Rich-	
mond, Surrey),	

(b) Seven districts have made arrangements for the admittance of patients to the hospitals of other authorities, namely :—

Finchley—arrangement with Hornsey (25 beds retained).

Greenford—arrangement with Ealing.

Hampton Wick and Teddington—arrangement with Hampton.

Tottenham—arrangement with Metropolitan Asylums Board (hospital situated in Tottenham area).

Wealdstone—arrangement with Hendon Rural.

Wood Green— „ „ Hornsey.

(c) Eight have not made provision or entered into any arrangements.

These are :—

Feltham	..	estimated population	5,773
Friern Barnet	..	„ „	10,625*
Hanwell	..	„ „	19,776
Kingsbury	..	„ „	805
Staines (urban)		„ „	7,046
Sunbury	..	„ „	4,680
South Mimms	..	„ „	2,808
Staines (rural)	..	„ „	21,824

As regards Hanwell it will be seen in the following account that steps were taken during 1906 to provide a hospital and that a Local Government Board inquiry was held.

Acton.—This is a recently built hospital containing 14 beds for scarlet fever, 14 beds for enteric fever, 2 beds for diphtheria, and 2 beds for cases under observation. Total: 32 beds. During the year it was found necessary to effect improvement in the means of heating the wards, and this was done by a hot water system of heating.

Brentford.—In this district the temporary hospital, originally situated in the Ham, was, during the year removed and re-erected at the side of the permanent hospital. The nurses' home is being enlarged and a discharge block and a porter's lodge are to be built.

Chiswick.—The hospital was opened in 1904, and contains 16 beds for scarlet fever and 4 beds for diphtheria and enteric fever. During 1906 "a plot of grass has been made and added to the

*Excluding asylum.

grounds of the hospital and has proved a great advantage to the children during the summer months."

Ealing.—Additions and alterations were completed in 1905, and the accommodation is, for scarlet fever 48 beds, diphtheria 8 beds, enteric fever 8 beds, cases under observation 4 beds, and in the emergency block 9 beds. Total: 77 beds. By arrangement, cases are admitted from the urban district of Greenford.

Edmonton and Enfield.—A joint Hospital Board was created in 1905 for these two districts. The hospital was built in 1900 by the Enfield District Council and is situated in Enfield. The accommodation appears to be :—scarlet fever 76 beds, diphtheria 13 beds, and enteric fever 18 beds. Total: 107 beds.

Feltham.—No isolation hospital. *See* remarks made under Staines (rural).

Finchley.—This district has made arrangements with the Borough of Hornsey for the reception of patients in the hospital of the latter authority.

Friern Barnet.—No hospital provided, and beds for patients have to be obtained if possible in the hospitals of other districts. During the year 18 cases were removed to various hospitals.

Greenford.—*See* Ealing.

Hampton.—This hospital contains 6 beds for scarlet fever, and 4 beds for diphtheria patients. It has been decided to erect a porter's lodge and a

discharging block, and the Local Government Board held an inquiry on December 5th, 1906, in reference to an application to raise a loan for this purpose.

Hampton Wick.—An arrangement has been entered into by which 4 patients can be admitted to the Hampton hospital if the beds are not needed by the latter authority. During the year all the beds were required by Hampton Wick, owing to the prevalence of scarlet fever.

Hanwell.—The need of isolation hospital accommodation in this district was acutely felt during 1905 owing to extensive prevalence of scarlet fever, and formed the subject of correspondence between the County Council and the District Council. Endeavours were made by the latter to provide for the isolation of patients, and the Southall-Norwood Urban District Council were approached by Hanwell with a view to arrangements being made to share the hospital of the former authority, but without success. Efforts were then made for the acquisition of certain sites in Hanwell and in Southall-Norwood for the purpose.

Finally a site was found, and on January 29th, 1907, a Local Government Board inquiry was held in reference to a petition from the Hanwell District Council to the Board to issue a Provisional Order to empower the Council to put in force the powers of the Lands Clauses Acts with respect to the purchase and taking of lands otherwise than by agreement required for the purpose of an isolation hospital and a refuse destructor.

Harrow.—The additions to this hospital were set out in the County report for 1905. The total accommodation is 15 beds, of which 10 are allotted to scarlet fever and 5 to diphtheria. During 1906, two cases of typhoid fever were treated at the hospital.

Hayes.—One of the constituent authorities in the Uxbridge Joint Hospital Board. *See below.*

Hendon (urban).—As in previous reports, it has again to be stated that the isolation hospital is a temporary structure and is only used for cases of scarlet fever. During 1906, the accommodation was taxed to the utmost, and 92 cases were isolated, this being the greatest number during any one year. No accommodation is provided for cases of diphtheria. It is highly desirable that the District Council should take some steps for the better provision of their district in respect to hospital accommodation, either alone or jointly with an adjoining district. In this connection it is noteworthy that Finchley, which adjoins Hendon on its eastern boundary, has no hospital, but at present has, by arrangement, 25 beds reserved in the isolation hospital belonging to Hornsey, and that Friern Barnet which adjoins Finchley on its north-eastern boundary, has no hospital accommodation. It may be worthy of consideration whether by combination these authorities might not provide a common hospital, if Finchley do not continue their existing arrangements when their agreement expires.

Heston and Isleworth.—This authority possesses a hospital jointly with the Borough of Richmond (Surrey). No steps have yet been taken with regard to the enlargement of the hospital, the need of which has been recognised for some time and has been referred to by the medical officer of health in several annual reports during recent years.

Hornsey.—By arrangement with the District Councils of Finchley (since 1903) and Wood Green (since 1905), patients from these districts are received at the isolation hospital belonging to the borough of Hornsey. The agreement with Wood Green is for a period of ten years. During 1906, extensions to the administrative block and the erection of a new ward block were completed, and the new buildings were opened for use. A total of 628 cases was admitted, of which 353 belonged to Hornsey, 128 to Finchley, and 147 to Wood Green. The cost of maintenance per inmate (including resident staff) is stated to have been 6s. 2½*d.* per head per week, as compared with 6s. 8½*d.* in 1905, with 7s. 7*d.* in 1904, and 8s. 7¼*d.* in 1903.

Kingsbury.—No hospital. This is a very small district and cases have usually been sent to Hendon (urban).

Ruislip-Northwood.—This is one of the constituent districts in the Uxbridge Joint Hospital Board.

Southall-Norwood.—This district has its own hospital for cases of scarlet fever and diphtheria. It is a permanent structure, but in addition, a Berthon

circular hospital is used and found very useful for convalescent patients. It is reported that the question of providing accommodation for cases of enteric fever will probably arise in the near future, owing to the difficulty of obtaining admission of such cases into most of the general hospitals.

Southgate.—This hospital was opened in 1902. It contains one ward block used for scarlet fever, and an isolation block used for diphtheria or typhoid fever, and the accommodation appears to be 18–20 beds. It is reported that during 1906 the accommodation was at times taxed to the utmost, and that throughout the year the number of patients in hospital was high, quite apart from the exceptional pressure which occurred during the epidemic of enteric fever in New Southgate, for which special provision of a temporary nature was made by adapting a disused school building for use as a hospital, but fortunately it was not necessary to use this. Taking into consideration the rapid increase in the population of the district, it appears very desirable that the accommodation at the hospital should now be extended by the enlargement of the isolation block.

Staines (urban).—No hospital. *See* remarks under *Staines (rural)*.

Sunbury.—No hospital. *See* *Staines (rural)*.

Teddington.—An arrangement was entered into with the District Council of Hampton in 1905, by which 4 beds are available for patients from Teddington if not needed by the District Council of Hampton.

Tottenham.—At the north-eastern hospital belonging to the Metropolitan Asylums Board 100 beds are reserved for the use of patients from Tottenham, in which district the hospital is situated.

Twickenham.—At the end of the year the building which has served as a temporary hospital for this district was still in use. On October 25th the Council approved plans for the erection of a new isolation hospital on land acquired for the purpose at Whitton. Provision is made for an administrative block, a ward block for 16 beds, an isolation block for four beds and a laundry and ambulance block. A disinfecting apparatus, it is reported, will be provided when required, and also a caretaker's lodge and a discharge block. There is space on the site for extension.

Uxbridge (urban).—This is a constituent district in the Uxbridge Joint Hospital Board. *See* Uxbridge (rural).

Wealdstone.—No hospital. By arrangement with the Rural District Council of Hendon cases are treated in the hospital at Stanmore belonging to the latter authority.

Wembley.—It appears that negotiations for providing an isolation hospital jointly with Wealdstone have unsuccessfully taken place. The medical officer of health again advises his authority to obtain a suitable site for a hospital. At present a cottage at Alperton is used for isolating cases of scarlet fever. During the year difficulty arose as regards cases of diphtheria, which could not be isolated

owing to the fact that they could not be taken in at the hospital of the Willesden District Council.

Willesden.—A full account of this hospital was given in the report for 1904, and reference may be made to this for particulars.

During the year there was great pressure on the accommodation, but it was fortunately found sufficient for the needs of the district. An extension of the hospital was made by the erection of a corrugated iron building for the accommodation of extra female staff.

Wood Green.—Agreement with Hornsey Borough Council to send cases to the hospital of latter authority for a period of ten years. The charge is to be £1 17s. 6d. per head per week. In addition Wood Green have paid £2,400 towards cost of necessary enlargement of hospital and will pay a further sum of £1,200. If at the end of the ten years the Borough Council of Hornsey decide not to continue the arrangement for a further five years, £1,000 will be repaid to Wood Green District Council.

Hendon (rural).—This hospital has been described in previous reports. During the year sixty-eight cases were treated.

South Mimms.—No hospital.

Staines (rural).—No hospital. In the report for 1905 I wrote as follows in regard to the question of isolation hospital accommodation for the districts

of Staines (rural), Staines (urban), Feltham and Sunbury :—

All these districts are in the same Poor Law Union, and as regards population they are small for the purpose of providing hospital accommodation separately, with the exception of the rural district of Staines. A joint scheme therefore suggests itself. During 1905 the question has been the subject of correspondence between the County Council and each of the authorities, and although nothing definite has yet been settled, it appears as the result of a conference between representatives of the authorities that they have come to the decision that hospital accommodation is needed. The County Council is now waiting to hear what action it is proposed to take to supply this recognised need before deciding as to taking action under the Isolation Hospitals Acts.

In February, 1906, as no definite information had been received by the County Council from the districts concerned I presented to the General Purposes Committee, on their instruction, a detailed report setting out the history of the matter and giving such information as indicated the need of the provision of hospital accommodation, and from this the following is extracted :—

As indicating the necessity which exists for the provision of isolation hospital accommodation to cope with infectious disease in this area, I set out the following information :—

1. *The population of the area.*—This, at the date of the last census in 1901, was 33,861, made up as follows—

Staines Urban, 6,688.	Sunbury, 4,544.
Staines Rural, 18,095.	Feltham, 4,534.

In 1904 this population was estimated to have increased to 35,733 (including institutions).

2. *The character of the population.*—The population is no doubt in part made up of residents whose social circumstances are such that they are not necessarily in need of isolation accommodation should infectious disease arise in their homes. But on the other hand, many are not so happily circumstanced, and in these cases, owing to the conditions of their housing, hospital isolation is the only practicable form of isolation. In the absence of this it is impossible to insure efficient isolation at home when infectious disease occurs, with the result that the risks of the spread of infection, not only to those living in the house, but also the neighbours, are much increased; and further, much hardship ensues, since it is not always possible in poorer homes to obtain the necessary attention and the skilful nursing needed by bad cases. It is not possible to give precise information showing the proportion of the population in the district who suffer under disadvantage of this sort, but I give the following figures from the census, 1901, as affording some indication. At that date there were in all 7,014 separate tenements in the area of the combined districts, and of these 2,521 were tenements which contained four rooms or less than four rooms. In 1,651 of the latter tenements the number of occupants in each was equal to one person per room. Isolation under such conditions is obviously not possible.

Again, Dr. Haslett, a member of the Sunbury District Council, is reported in the *Thames Valley Times* of December 21st, 1904, when diphtheria was prevalent in the district, to have stated at a meeting of the district council that “it was not possible to isolate the cases in most of the houses.” Whilst Dr. Morris, who was at that time

medical officer of health at Sunbury, writes in his annual report for 1904:—

Another argument in favour of an isolation hospital is the fact that the present epidemic has been rife amongst the artisan class, who, as a rule, cannot afford a prolonged medical attendance, and consequently cases are to a certain extent allowed to drift and become a source of danger to the community.

As a temporary measure, I advised that a certain cottage might be taken in Oil Mill Lane, to convert into a temporary hospital, but you did not agree with my suggestion.

3. *The course of infectious disease in the district during recent years.*—With a view to getting information on this matter, I have gone through the reports for the last few years, and from the figures given of the cases notified of scarlet fever and diphtheria have prepared the following table, showing the number of cases occurring during each year per 1,000 of the population. It will be seen that when these diseases appear they tend to spread rapidly, and affect a large proportion of the population.

ATTACK RATE PER 1,000 PERSONS LIVING.

Scarlet Fever.

	1899.	1900.	1901.	1902.	1903.	1904.
Sunbury Urban	2·3	1·3	2·5	1·2	6·0	15·9
Staines Rural..	3·7	2·4	1·8	4·6	2·0	4·2*
Staines Urban..	11·3	7·4	2·9	2·2	0·1	0·4

* Including Feltham Urban District, created 1904.

Diphtheria.

	1899.	1900.	1901.	1902.	1903.	1904.
Sunbury Urban	—	—	—	0·6	13·1	23 3
Staines Rural..	1·8	2·6	1·1	1·4	3·0	1·4*
Staines Urban	0·1	3·6	8·1	3·3	1·0	0·8

* Including Feltham Urban District, created 1904.

This table shows that during the six years (1899–1904) scarlet fever or diphtheria have at different times been very prevalent in one or other of the districts, and that they became especially prevalent in Sunbury in 1903 and 1904.

The epidemic of diphtheria in the last-named district was accompanied by a proportionately large number of deaths, and in his annual report the medical officer of health wrote as regards this as follows:—

I venture to say, without fear of contradiction, that had these cases which ended fatally been placed under more favourable conditions, many would have been saved. This power of further saving valuable lives rests with you, by making the necessary provision.

4. I would draw attention to the fact that reference has been made in several of the annual reports of the local medical officers of health during recent years to the need of isolation accommodation for ordinary infectious diseases. Thus, in the case of the urban district of Staines the subject is mentioned in the reports of 1893, 1894, 1895, 1899, and 1904. In the report for 1899, when scarlet fever was very prevalent, the medical officer of health stated, “The number of cases of infectious disease emphasises the

need for an isolation hospital for the district"; whilst in 1904, in commenting on the small amount of notifiable infectious disease, he points out that as a susceptible population grows up there will be risk of another scarlet fever epidemic.

In the reports on Sunbury, the matter is referred to in the reports of 1898, 1903, and 1904. In the last but one of these Dr. Morris, the then medical officer of health, pointed out to his authority, in connection with the epidemic of diphtheria, "that unless provided with a properly equipped hospital or special building sufficiently isolated to treat such cases at their earliest period epidemics like the present one . . . will always be most difficult to check."

5. Finally, it is sometimes stated that residents of a district would not go to the hospital if it were provided. The answer to this is to be found in the following figures from the thirty-fourth Annual Report of the Local Government Board, 1904-5, which shows that there has been a marked increase in the proportion of cases admitted to hospitals of the Metropolitan Asylums Board, as compared with the number of cases notified, thus:--

Of Scarlet Fever notifications—

In 1895 ..	58·2	per cent.	were sent to hospital.
In 1904 ..	84·5	„	„ „

Of Diphtheria notifications—

In 1895 ..	41·5	per cent.	were sent to hospital.
In 1904 ..	79·4	„	„ „

Upon the above facts I am led to the conclusion that there is need for isolation hospital accommodation being

provided for the use of residents in the districts of Staines (urban), Staines (rural), Sunbury and Feltham.

In view of the fact that, except the Rural District of Staines, each of these districts had a population of less than 7,000 at the last census, it is obvious that each authority cannot well deal with the matter separately, whereas by joint action it would be possible to provide and maintain more economically and efficiently a building for the purpose. If this were situated in a fairly central part, all the more populous parts of the district would be within a radius of four to five miles.

Uxbridge (rural).—This is one of the constituent authorities in the Uxbridge Joint Hospital Board, the other authorities being Uxbridge (urban), Hayes, and Ruislip-Northwood. The Hospital is situated at Hillingdon East in the rural district. Last year a special report on the alterations and extensions needed was presented to the Board by the medical officer of the Board, Dr Davidson, and myself at their request. This will be found as an appendix to the County Report for 1905. In 1906 the Board decided to adopt the more comprehensive of two alternative schemes suggested by us and instructed an architect to draw plans and get out specifications, and on 14th May, 1907, an inquiry was held by the Local Government Board as to granting an application from the Hospital Board for a loan of £7,500 to carry out the extensions.

(2) SMALLPOX HOSPITAL ACCOMMODATION.

In 1905, a Joint Smallpox Hospital Board, known as the Middlesex Districts Joint Smallpox Hospital Board, was constituted. The constituent authorities are :

Acton.	Hanwell.
Brentford.	Harrow.
Chiswick.	Southgate.
Edmonton.	Tottenham.
Enfield.	Wealdstone.
Greenford.	Wood Green.
Hampton Wick.	

At a meeting of the Board on the 5th March, 1906, it was resolved to make application to the Local Government Board for their sanction to a loan amounting to £38,087 for the purpose of purchasing Clare Hall Hospital property and furniture, and the expenses in connection therewith. An inquiry was held by the Local Government Board on October 5th, 1906, as the result of which sanction was granted for the above loan, to be repayable in 25 years, subject to an undertaking on the part of the Hospital Board that certain requirements relating to the hospital buildings should be carried out.

So far as relates to other districts, there is no information in the district reports indicating that any alterations have been made in the arrangements set out in a previous County report (1904), except that in the report on Staines (rural) there is a suggestion of some alteration in connection with the Smallpox hospital provided by that authority.

Cases removed to Hospital suffering from certain notifiable Infectious Diseases.

District.	NUMBER REMOVED.				NUMBER NOTIFIED.					
	Scarlet Fever.	Diphtheria.	Membranous Group.	Enteric.	Total.	Scarlet Fever.	Diphtheria.	Membranous Group.	Enteric.	Total.
URBAN.										
Acton	150	34	—	6	190	170	46	—	12	228
Brentford	133	26	—	3	162	160	106	—	5	271
Chiswick	87	15	—	7	109	121	28	—	7	156
Ealing (<i>Borough</i>)	102	101	—	2	205	133	141	—	7	281
Edmonton	337	71	1	16	425	383	91	2	25	501
Enfield	223	29	—	10	262	259	56	2	24	341
Feltham	—	—	—	—	—	41	1	—	—	42
Finchley	90	24	—	10	124	128	30	—	11	169
Friern Barnet	6	4	—	8	18	19	12	—	11	42
Greenford	—	—	—	—	—	—	—	—	—	—
Hampton	19	3	—	—	22	24	4	—	1	29
Hampton Wick	10	—	—	3	13	44	—	—	5	49
Hanwell	—	—	—	—	—	96	39	—	4	139
Harrow	13	1	—	2	16	18	6	—	4	28

	4	7	1	—	12	4	10	1	—	15
Hayes	..	4	7	1	—	12	4	10	1	—
Hendon	..	89	15	—	106	116	19	—	6	141
Heston & Isleworth	..	55	54	—	112	69	63	5	7	144
Hornsey (<i>Borough</i>)	..	249	97	—	353	411	157	—	25	593
Kingsbury	..	—	—	—	—	2	—	—	—	2
Ruislip-Norwood	..	13	1	—	14	19	1	—	—	20
Southall-Norwood	..	80	21	—	101	99	27	4	9	139
Southgate	..	57	20	—	145	85	31	—	79	195
Staines	..	—	—	—	—	3	6	—	—	9
Sunbury	..	—	—	—	—	8	20	1	1	30
Teddington	..	2	—	—	3	42	5	—	6	53
Tottenham	..	377	105	—	530	459	122	—	62	643
Twickenham	..	77	—	—	78	82	25	—	6	113
Uxbridge	..	11	16	—	27	12	16	—	1	29
Wealdstone*	..	—	—	—	—	29	3	—	—	32
Wembley*	..	—	—	—	—	19	3	—	—	22
Willesden	..	543	222	—	798	637	280	6	46	969
Wood Green	..	139	51	—	194	224	74	2	16	316
RURAL.										
Hendon	..	21	11	—	32	33	14	—	2	49
South Mimms	..	—	—	—	—	10	6	—	—	16
Staines	..	—	—	—	—	53	19	—	1	73
Uxbridge	..	53	10	—	63	68	14	—	3	85
Total	4,114	Total	..	..	..	5,964

* Number not given.

DISINFECTION.

In the following table the facts as to the means of disinfection have been brought up to date as far as possible:—

Methods of Disinfection in Use.

District.	Rooms.	Articles of Clothing, Bedding, etc.	Remarks.
Acton ..	Sprayed with formalin and then fumigated for six hours with formalin	Steam disinfecting apparatus (Washington Lyon) at Isolation Hospital	Two vans, one for infected other for disinfected articles.
Brentford	No details given as to methods in practice	Steam disinfecting apparatus at Isolation Hospital.	
Chiswick	"	"	Two transport vans.
Ealing ..	"	Steam disinfecting apparatus.	
Edmonton	Sprayed with formalin ..	"	
Enfield..	No details	"	
Feltham	Spraying and fumigation with formalin	No steam apparatus. Exposed in room during fumigation.	
Finchley	" Walls stripped and cleaned if necessary	Steam disinfecting apparatus (Equifex).	

District.	Rooms.	Articles of Clothing, Bedding, etc.	Remarks.
Friern Barnet..	Spraying with formalin and sulphur fumigation. Cleansing if necessary.	Sent to Finchley.	
Greenford ..	Information not given ..	Information not given.	
Hampton ..	Fumigation with formalin, stripping and cleansing where necessary	Steam apparatus at Isolation Hospital.	
Hampton Wick	Fumigation with sulphurous acid gas	No disinfecting apparatus.	
Hanwell ..	Formalin spray	By arrangement with Ealing use of the steam apparatus here is available when not in use.	
Harrow ..	Formalin spray and fumigation	Steam disinfecting apparatus at Hospital.	
Hayes..	Disinfection with formalin	No steam disinfecting apparatus.	

Methods of Disinfection in Use—continued.

District.	Rooms.	Articles of Clothing, Bedding, etc.	Remarks.
Hendon	Disinfection with formalin	Steam disinfecting apparatus.	
Heston and Isleworth	No details given as to methods in practice	" "	
Hornsey	"	"	
Kingsbury	Formalin spray and fumigation. Cleansing of walls, &c., if necessary	No information given.	
Ruislip- Northwood	Disinfection with formalin	Arrangements made for disinfection in steam apparatus of Hendon Rural District.	
Southall- Norwood	Fumigation with sulphur. Walls, floor, and ceiling are brushed over, and woodwork washed with solution of chloride of lime	Steam disinfecting apparatus at Hospital.	Two transport hand trucks. If case is treated at home the walls of rooms are stripped and scraped.

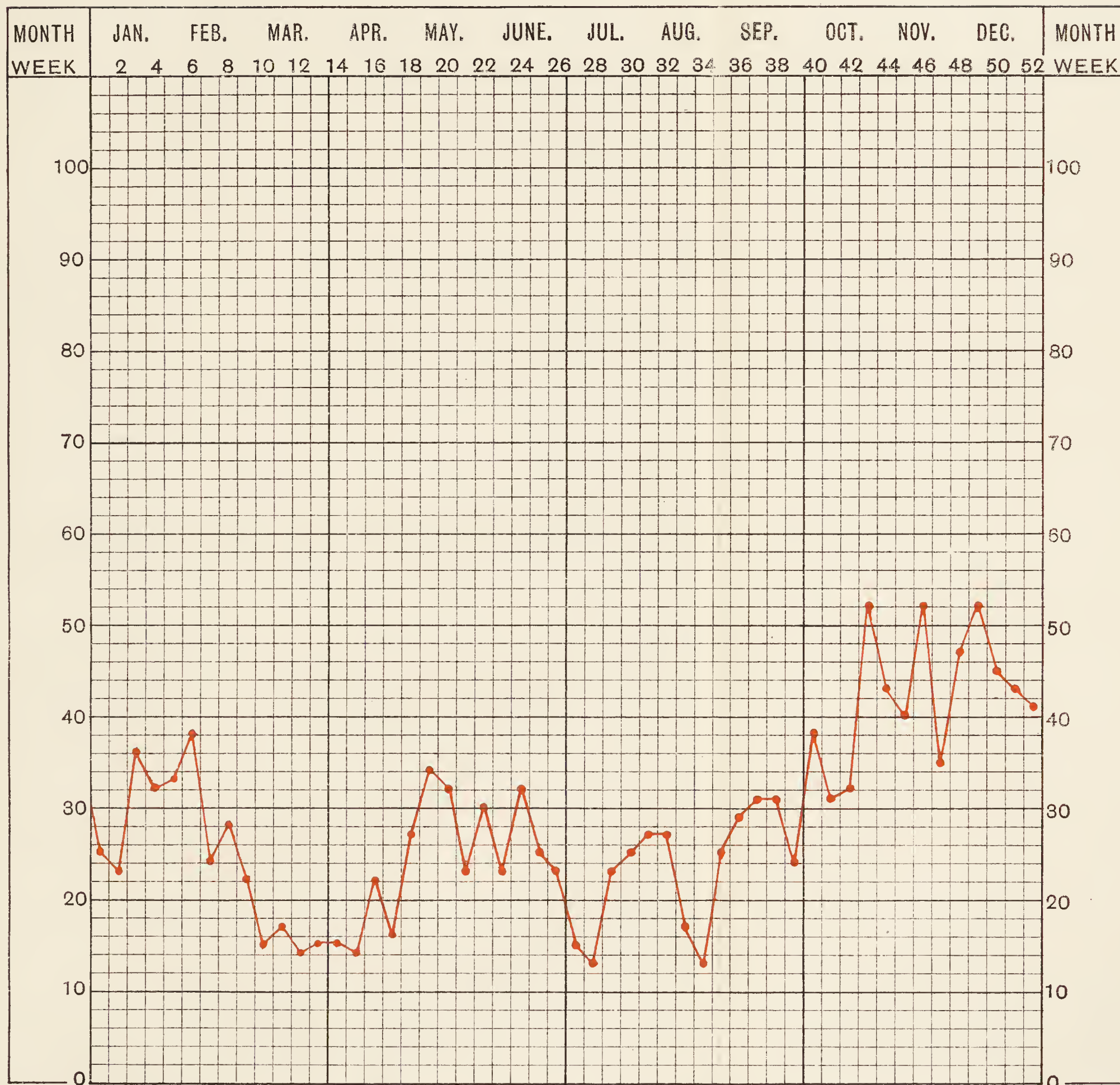
District.	Rooms.	Articles of Clothing, Bedding, etc.	Remarks.
Southgate ..	Formalin spray and fumigation. Walls stripped and rooms washed	Steam disinfecting apparatus at Hospital.	Two transport vans.
Staines (urban)	Sulphur fumigation ..	No steam disinfecting apparatus.	
Sunbury ..	Fumigation with formalin	No steam apparatus, sprayed with formalin.	It is hoped that a steam disinfectant will be provided.
Teddington ..	Sprayed with formalin ..	No steam apparatus, steeped in a solution of Jeyes' liquid.	
Tottenham ..	Rooms fumigated, stripped and cleansed.	Steam disinfecting apparatus provided.	
Twickenham ..	Rooms fumigated.. ..	No information.	
Uxbridge ..	Fumigation with formalin, stripping and cleansing where necessary.	No steam disinfecting apparatus	
Wealdstone ..	Formalin spray and sulphur fumigation	Steam disinfecting apparatus with formic aldehyde added.	

Methods of Disinfection in Use—continued.

District.	Rooms.	Articles of Clothing, Bedding, etc.	Remarks.
Wembley ..	Formalin spray and formalin fumigation	Steam disinfecting apparatus in basement of office	
Willesden ..	Formalin spray	Steam disinfecting apparatus at Hospital	
Wood Green ..	No details given as to methods in practice	Steam disinfecting apparatus.	
Hendon (rural) .	Formalin spray and formalin fumigation. Floors washed with Pynerozone	Sprayed with formalin and fumigated, or disinfected in steam apparatus at Hospital.	Special bed van.
South Mimms (rural)	Rooms fumigated	No information.	
Staines (rural)..	Formalin fumigation (Ligner's apparatus)	No steam apparatus.	
Uxbridge (rural)	Sulphur fumigation and after smallpox formalin fumigation as well.	" "	It is again reported that "a steam disinfectant is needed."

DIPHTHERIA AND MEMBRANOUS CROUP.

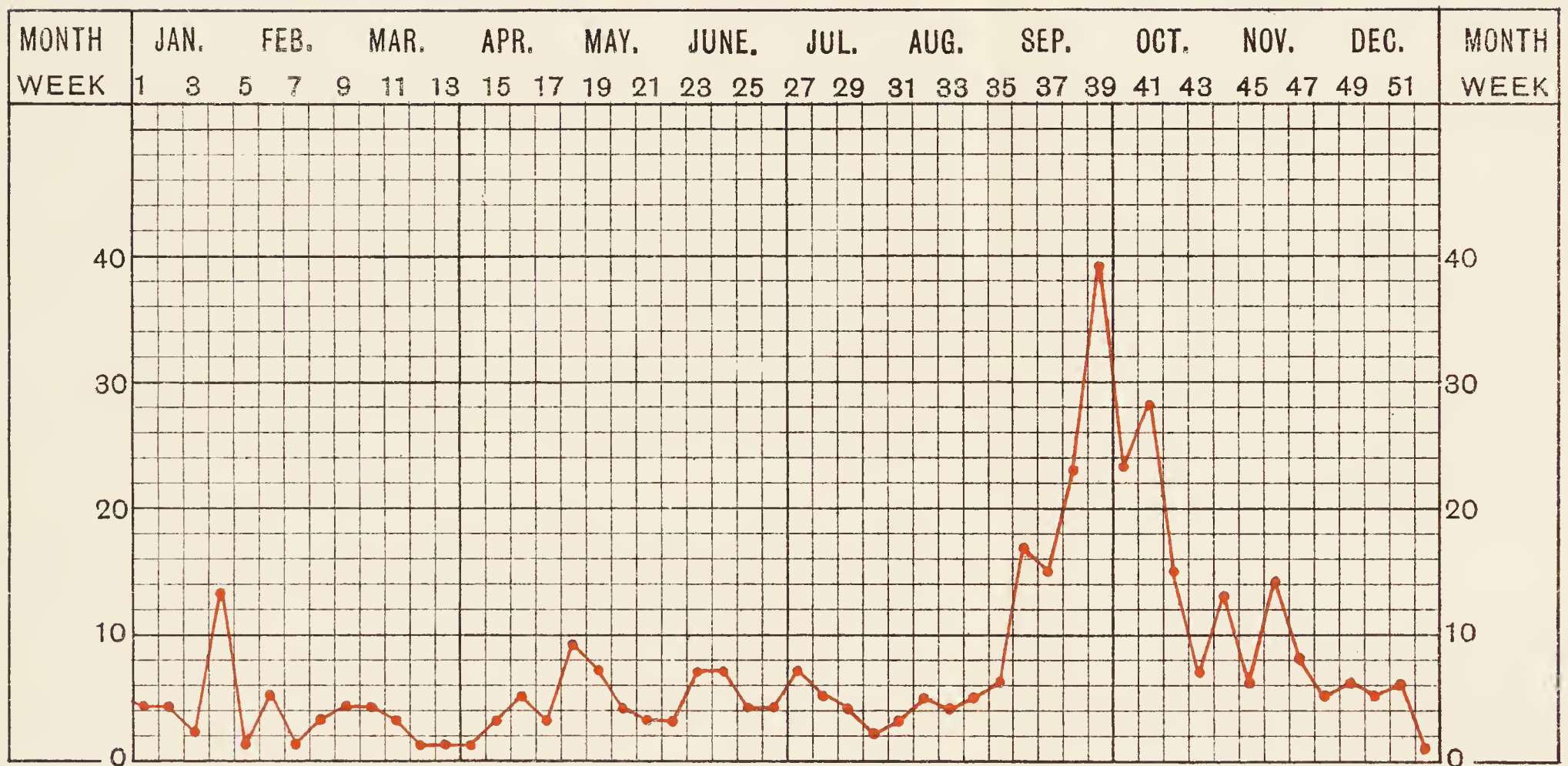
WEEKLY NOTIFICATIONS, 1906.



ADMINISTRATIVE COUNTY OF MIDDLESEX.

ENTERIC FEVER.

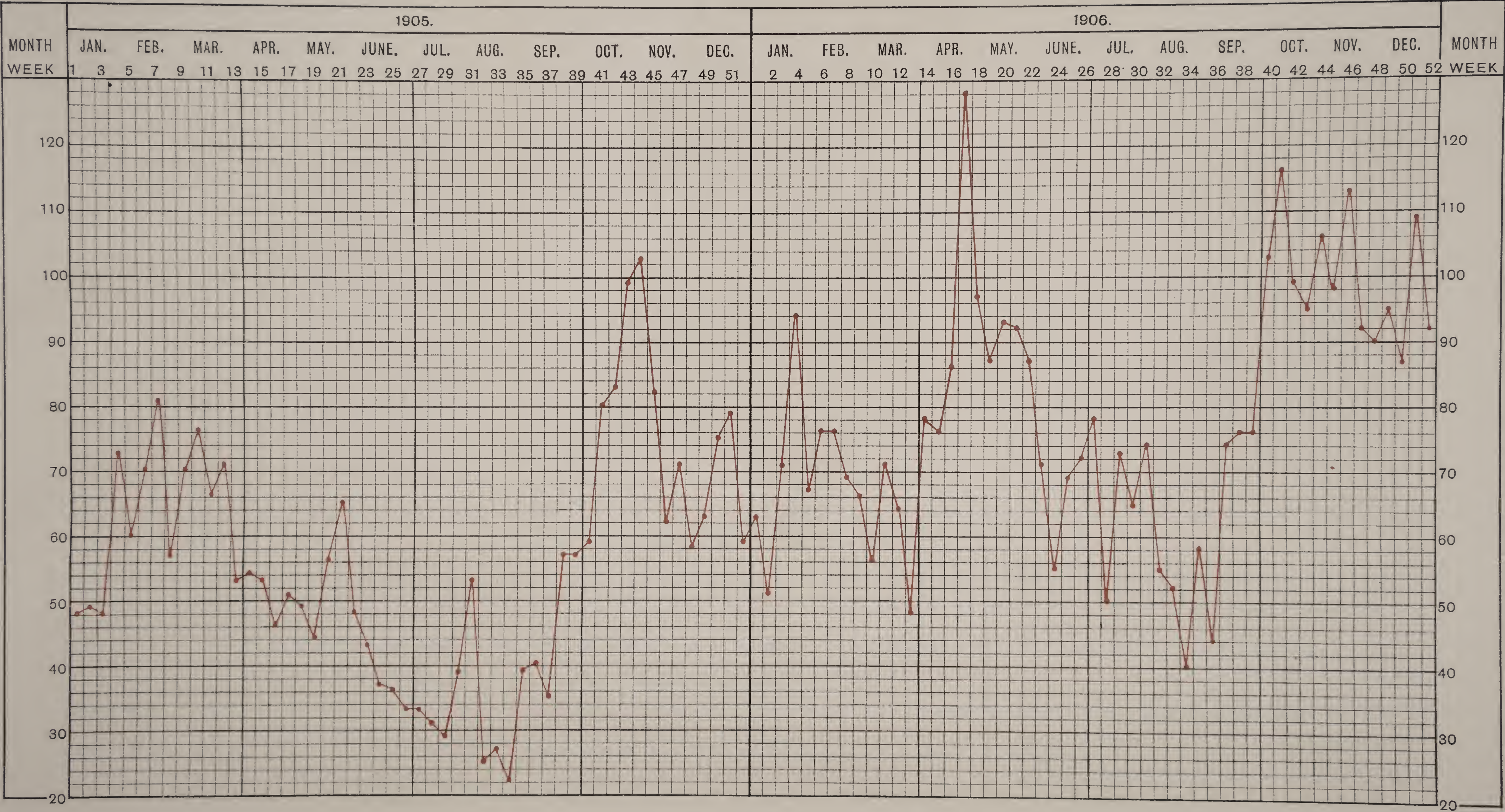
WEEKLY NOTIFICATIONS, 1906.



ADMINISTRATIVE COUNTY OF MIDDLESEX.

ADMINISTRATIVE COUNTY OF MIDDLESEX.— SCARLET FEVER.

WEEKLY NOTIFICATIONS.



HOUSES.

Statistical details as to the work carried out in each district in connection with the inspection and re-inspection of houses will be found set out in the Sanitary tables at the end of the report, whilst under the section relating to by-laws will be found information as to authorities which have made by-laws respecting new streets and buildings. It appears that during 1906 36 houses were closed as being unfit for human habitation, and 10 were re-opened after repairs and alterations had been effected in them. Action was taken as regards 8 illegal underground dwellings, resulting in a discontinuance of their use as habitations.

References to housing conditions in the various reports are as follows :—

Brentford.—Dr. Bott again directs attention to the old and insanitary property which exists immediately at the rear of the houses forming the north side of the High St. It would appear that action in dealing with these slum areas has been in abeyance, owing to the prospect that steps would shortly be taken with a view to the widening of the very narrow High Street, an improvement which has been under the consideration of the District Council and of the County Council for some time past, but as regards which, for one or other reason no definite decision had been arrived at up to the end of the year.

It is also stated in the report that there “are several bad properties in New Brentford” and Dr. Bott recommends as regards all these insanitary

properties that they should, at an early date, be visited by the Sanitary Committee, the Surveyor, and himself in order that some plan may be devised for the improvement or demolition of the houses so far as it is possible to do this without inflicting unnecessary hardship on the occupants, or bringing about overcrowding in other houses.

He reports that during the year a great improvement was effected by making a road "from High Street to Albany Road through the One Tun Yard thus opening up Old Spring Gardens and Hardings Court" which he anticipates will now speedily disappear.

Chiswick.—In the report of Mr. Clarke, the sanitary inspector, it is stated that increasing attention has been given to systematic house-to-house inspection, and attention is drawn to the advantage of this procedure in maintaining premises in a satisfactory condition. A total of 2,721 houses was inspected in this way during the year, and it appears that at these inspections a census of inhabitants is taken which is of assistance in arriving at the estimated population of the district. Under the revised by-laws relating to New Streets and Buildings it has been possible to deal more effectively than before with the paving of yards. Owing to the close attention devoted to old property it has not been found necessary to take any action under the Housing of the Working Classes Act.

Edmonton.—The medical officer of health specially refers to the work done under by-law 113 of the

“By-laws relating to New Streets and Buildings” which were revised in 1904 and approved by the Local Government Board in the same year. The effect of this by-law is that a person shall not let or occupy a new building, until it has been after examination certified by an officer of the district council to be in his opinion in every respect fit for human habitation. The duty of certifying has been placed upon the medical officer of health. During the year the total number of new houses inspected for this purpose was 376 of which 254 were passed upon the first inspection, 76 on second inspection, 27 on the third inspection, 4 on the fourth inspection, and 2 after five inspections. Of 13 houses not passed at the end of 1906, 9 had been inspected once, 3 three times, and 1 on five occasions.

Dr. Lawrence states “during the year the Council have taken legal proceedings against seven persons; convictions were obtained in all cases except one, against whom the case was dismissed as there was no evidence to show that he was the person who actually let the premises in question.”

Closing orders under the Housing of the Working Classes Act were obtained in four cases.

It is reported that plans, for the erection of Artizans Dwellings, at an average rent of 6/6 per week, on a site purchased by the district council for the purpose, were considered during the year, but the scheme is still in abeyance.

Enfield.—Eleven cottages in Gordon Lane were reported by the Medical Officer of Health, six

being unfit for human habitation and five in need of repair and a proper water supply. They have since been put in order, and two cottages closed in 1905 by closing order have also been remedied.

Finchley.—Dr. Taylor reports that the housing accommodation for the working classes is ample, but that complaint is made that the rents are as a rule more than they can afford.

Building is actively taking place in the district, and during the year 442 new houses were passed as fit for occupation.

During the year 294 house-to-house inspections were made.

Hampton.—It is reported that a large number of new houses were erected during 1906.

One house was closed as being unfit for human habitation, and two others, previously closed by magistrates' order, have since been demolished.

Fifty-six house-to-house inspections were made during the year.

Hampton Wick.—Dr. Günther, in referring to the fact that the district council has adopted Part iii of the Housing of the Working Classes Act, states :—
“at present your council has not succeeded in finding suitable building ground,” and adds that no vacant cottages are available for working men, although it would be a great boon to those who live in lodgings, or have work in the district if they could get cottages at a reasonable rent

Hayes.—It is reported that considerable increase in the number of small houses and cottages has taken place during the year, and that the housing accommodation is at present sufficient for the needs of the district.

Hendon (urban).—Dr. Andrew reports that the need of dwellings for the working classes is felt in parts of the district, especially at Child's Hill, where some of the houses are dilapidated and overcrowded. He states that the district council have considered the question on several occasions, that plans for the erection of workmen's dwellings have been invited, and that a favourable termination is anticipated.

Southall-Norwood.—Dr. Windle writes that during the year 328 houses (including 31 shops) were certified as fit for occupation. No proceedings under the Housing of the Working Classes Act were taken during 1906.

Southgate.—Dr. Ransome states that under the provisions of the Housing of the Working Classes Act one cottage was closed and four cottages were closed and demolished. These were all at Winchmore Hill. One cottage at Palmer's Green was repaired and made fit for habitation. He draws attention to the existence of "many other old cottages remaining in different parts of the district which ought to be pulled down, and which would be condemned except for the fact that there are no better ones for the occupants to go into if this were done," and he further points out

that when such cottages are demolished by the owners the sites are used for the erection of villa and shop property. In his opinion the necessity of providing suitable dwellings at a reasonable rent for the working classes, becomes each year more urgent, and he expresses the hope that the district council "will not lose sight of this important matter."

Staines (urban).—The housing accommodation appears to be sufficient for the needs of the district, but it is stated that there are some old cottages, several built of wood, which do not comply with modern requirements.

Teddington.—Dr. Günther writes that after the adoption of Part III. of the Housing of the Working Classes Act the district council selected a site of six acres for the erection of artizan dwellings and that a Local Government Board inquiry was held in November, 1906, in regard to an application to borrow £4,200 for the purchase of the site. The Board had not given their decision at the end of the year. In connection with this inquiry a house-to-house inspection was made of 28 streets, chiefly occupied by weekly tenants, and information obtained as to rent, number of inmates, and rooms in each cottage. The results are given by Dr. Günther as follows :—

"That there are about 829 houses in the parish containing 4,454 persons of the labouring class. This gives an average population of 5·37 inhabitants per house. Four of these houses contain three families each and 117 two families each. The majority of the cottages are let at rents ranging from 7s. to 9s. per week. There are a

few let at 6s. 6d. per week and under. Houses occupied by two families contain four, five and six rooms. Although these houses are not overcrowded to the extent that would justify my recommending proceedings, still, they contain more people than is desirable for consideration of health. The cottages are not adapted for two families and have only one kitchen, one wash-house and one w.c. In my report for 1905 I drew the Council's attention to the desirability, if possible, of making provision for housing the working classes. Suitable land in the district each year becomes scarcer and more difficult to obtain at a reasonable price, hence unless measures are at once taken it will hereafter be impossible to make any provision.

“There can be little doubt that the over-populating of the houses referred to is due to high rents, and in my opinion it would be a great boon for many families, who have to live in lodgings, to be able to get a cottage at a rent which does not absorb one-third of a workman's wage. There should be no difficulty in providing houses that would be financially self-supporting and not chargeable upon the rates.”

Tottenham.—It is reported that the various schemes for the provision of houses under the Housing of the Working Classes Act have been abandoned and part of the land provided for this purpose has been disposed of by the district council. Two large estates in the district have recently or are now being erected, viz., by the London County Council and by the Peabody Trust.

Seven houses were demolished during the year owing to representations to the owner by the local authority as to their unfitness for human habitation, and it was not necessary to resort to legal proceedings.

Twickenham.—A house-to-house inspection was made of premises in 18 streets. It does not appear to have been necessary to apply for any closing orders as regards any premises.

Wembley.—Dr. Goddard refers to the fact that a few years ago the question of action under the Housing of the Working Classes Act, with a view to the erection of artizan dwellings, was mooted. He now reports that a large number of small houses have been erected by private owners and that it cannot now be said that there is insufficient housing accommodation, although the rents are high. He further adds that as regards many of these new buildings their construction “can only narrowly comply with the wording of the by-laws and one doubts whether the woodwork especially, is ever substantial enough to ensure its durability, or any real comfort, to the occupiers.”

Wood Green.—In the report of the sanitary inspector information is given as to the results of house-to-house inspection. This work was temporarily interfered with owing to the resignation of one of the inspecting staff. A total of 206 houses in six roads was visited. These contained 1,163 rooms, occupied by 625 adults and 586 children or an average of 1·01 persons per room. A considerable number of defective conditions were found and remedied.

Hendon (rural).—Dr. Campbell Gowan reports that 156 houses were erected during 1906, but adds that there is still great need for cottage accommodation for the working classes in many parts.

HOUSES LET IN LODGINGS OR TENEMENT HOUSES.—
OVERCROWDING.

In previous reports attention has been specially directed to the fact that, under Section 8 of the Housing of the Working Classes Act, every sanitary authority is empowered to make by-laws as to tenement houses, and the matters with which such by-laws may deal have been set out in detail. These by-laws are of considerable use in dealing with many cases of overcrowding. It is not necessary now to do more than record the action which has been taken during the year in the various districts. The districts which have made by-laws will be found set out in a table under the section relating to by-laws later in this report.

Satisfactory progress appears to have been made in some districts in registering houses under the by-laws, and the returns show that the numbers are as follows :—

Acton, 132.	Southall-Norwood, 16.
Chiswick, 341.	Tottenham, 19.
Heston and Isleworth, 1.	

The total number of cases of overcrowding reported again shows an increase on those of the previous year, namely, 292, as compared with 234.

COMMON LODGING HOUSES.

From the reports it appears that the total number of common lodging houses registered in the County is 34, as follows :—Acton 2, Brentford 7, Edmonton 1, Hampton Wick 2, Harrow 1, Heston and Isleworth 2, Staines (urban) 1, Tottenham 4, Uxbridge (urban) 13, Willesden 1, and 21 contraventions of the Act are reported.

In 1905 the returns showed there were 31, and in 1904 there were 46 registered common lodging houses.

MOVABLE DWELLINGS.

In the report for 1905 reference was made to the difficulties which are experienced by local authorities in connection with dwellers in vans, tents, &c., and it was stated that during recent years applications have been frequently received by the County Council from district councils (the last from the district council of Edmonton in 1904) asking that by-laws for the good rule and government of the County might be made for the purpose of dealing, in their respective districts, with gipsy encampments and squatters. Such by-laws have already been made and approved by the Home Office for the following districts:—

Acton.. ..	1893	Tottenham ..	1894
Hendon (urban)	1893	Twickenham ..	1893
Southgate ..	1893	Wood Green ..	1893
Teddington ..	1890	Staines (rural) ..	1893

These by-laws were to the effect that no owner should allow any land within 100 yards of a street or dwelling house to be used by any van dweller, squatter, &c., and that no such person should use as a dwelling place any land within 100 yards of a street or dwelling house, so as to cause annoyance, injury or disturbance to the residents.

The Home Office, however, declined, after 1896, to approve by-laws to the above effect in regard to any other district in the County.

Apart from the above, district councils have powers under Section 9 of the Housing of the Working Classes

Act, to make by-laws in regard to this class of premises, but these do not appear to have been regarded as sufficient to cope with this vagrant class of the community. The districts in which such by-laws have been adopted will be found in the section on by-laws. In 1906, the County Council in their General Powers Act, obtained powers with a view to dealing with this migratory population, and these are contained in Section 34 of the Act, which is to the following effect:—

“34.—If and whenever the Council on the application of the local authority of any district shall by resolution so determine the following provisions shall have effect in the district of such local authority (that is to say) :—

“If any squatter or gipsy or other person dwelling in a tent or van or other similar structure shall occupy any land within fifty yards of any street public highway or dwelling-house so as to cause injury to residents in the neighbourhood or to be a nuisance or dangerous or injurious to health a Court of Summary Jurisdiction may on complaint by the local authority make an order prohibiting (either absolutely or subject to conditions) the further occupation of the land by any squatter gipsy or other person so as to cause such injury or to be a nuisance or dangerous or injurious to health as aforesaid and if the order be not complied with the owner or lessee of the land or other person who suffers the land to be so occupied and the squatter gipsy or other person shall each be liable to a penalty not exceeding five pound and to a further penalty not exceeding twenty shillings for every day on which the land shall be so occupied after the date from which the said order takes effect. Provided that the local authority before making any complaint shall give to the said owner or lessee or other person who has suffered the land to be so occupied not less than twenty-four hours’ notice in writing of their intention so to complain and shall

at the same time give a similar notice to any squatter gipsy or other person who shall then be occupying the land in respect of which the complaint is intended to be made.

“Provided that the powers conferred upon the local authority and the Council under this section shall be deemed to be in addition to and not in derogation of the powers of the local authority and the Council respectively under any other general or local Act of Parliament.

“This section shall not apply to any person dwelling in a tent or van or other similar structures who is a roundabout proprietor or showman or stall-holder (not being a pedlar or hawker) nor to any owner or lessee or other person who suffers any land to be occupied by such persons in such manner aforesaid.”

The following is a list of district councils who have applied to the County Council to determine that Section 34 of the General Powers Act, 1906 (relating to gipsy encampments) be made applicable to their districts:—

Friern Barnet	..	granted	December, 1906.
Greenford	.. ..	”	”
Hanwell	.. ..	”	February, 1907.
Wood Green	.. ..	”	April, 1907.

The following remarks are made in the annual reports with reference to gipsies:—

Edmonton.—The inspector of nuisances states, with regard to the provision in Section 34 of the County Council (General Powers) Act, 1906, as to giving 24 hours’ notice in writing to the gipsies of intention to complain to the Justices, that “giving notice to gipsies, written or verbal, has practically no effect. The powers

we have already are quite as useful." Sixty notices were served and six summonses were issued, but only four could be served because the defendants moved away ; but they returned when they knew the time for service had expired.

Hanwell.—The inspector of nuisances (Mr. Thomas) reports that complaints were made to the district council as to gipsies in High Lane and on land adjoining. The gipsies found in the lane were removed by the inspector and the surveyor, and the attention of the owners of the land on which some of them were encamped was drawn to the by-laws relating to tents, vans, and sheds, with the result that the latter all removed from the district. Altogether 31 removed from the district during the year.

Tottenham.—Dr. Butler-Hogan reports that 248 encampments were removed by the inspector during 1906, exclusive of those dealt with by the police. He expresses the opinion that van-dwellers must continue to be a source of expense and danger to the district until power is given to deal with them under the nuisance clauses of the Public Health Act.

Wembley.—Dr. C. E. Goddard, medical officer of health, states that "the caravan and gipsy nuisance has much lessened owing to prompt action during the last year or two in issuing summonses."

Wood Green.—Two cases of breaches of Common By-laws (gipsy) are reported and the defendants were fined 20s. and costs in each case.

Hendon (rural).—Dr. Campbell Gowan reports that 311 vans were inspected, 212 removed from the district, and 31 nuisances were abated. In Harrow Weald, which seems a favourite resort of these gipsies, he states, 197 vans were inspected.

Staines (rural).—The medical officer of health remarks that the nuisance from caravans is becoming much less than formerly.

CANAL BOATS USED AS DWELLINGS.

As regards the administration of these Acts, the following references are made :—

Brentford.—The number of boats examined during the year was 70. The condition of the boats and their occupants was satisfactory, and there were no contraventions of the Canal Boats Acts, 1877 and 1884, or Regulations. There were no cases of infectious disease. The number of boats on the register is 305, one being registered during the year.

Edmonton.—There were 9 contraventions of the Acts and Regulations, but the boats were found, generally, to be in good condition.

Hampton.—5 boats are registered under the Acts.

Hanwell.—18 boats were inspected and 3 contraventions of the Acts or Regulations were discovered. Proceedings were taken against the owner of a boat for failing to paint the cabin once in three years. The case was withdrawn, however, as the owner produced in Court an account showing

that the cabin had been painted within the three years. No cases of infectious disease were notified. The boats were kept generally in a clean condition.

Heston and Isleworth.—279 boats were inspected and 49 contraventions of the Acts and Regulations were discovered in 30 boats. Of the 279 boats inspected, 48 were visited more than once. The population of the boats was 591, comprising 280 men, 132 women, and 179 children. The boats were free from infectious disease. It is stated that sanitary accommodation for women and children on canal boats is required at Brentford Lock.

Southall-Norwood.—It is reported that 83 boats were inspected and 3 contraventions were discovered and remedied.

Uxbridge (urban).—“There are 264 canal boats registered; 7 contraventions were discovered and rectified.”

Wembley.—“The canal boats are boarded occasionally and carefully inspected, but the provisions of the Act are usually found complied with.”

Willesden.—In this district 19 contraventions of the Act are reported.

WATER SUPPLY.

Practically the whole of the County of Middlesex is now supplied with drinking water obtained from a public source, although there are still houses in parts somewhat outlying from centres of population which derive water

from local wells. A great part of the County comes within the area of supply of the Metropolitan Water Board, and the remainder for the most part is supplied by Water Companies.

The information given in the district reports is not sufficiently complete to give a definite account of the exact supply in all parts of the County, and it would be an advantage if each medical officer of health in his next annual report were to give the different sources from which the water supply of his district is obtained.

So far as information is available it appears that the Metropolitan Water Board supply water to the following districts, either for the whole area or for part, namely in—

Acton.	Hornsey.
Brentford.	Southall-Norwood.
Chiswick.	Southgate.
Ealing.	Sunbury.
Edmonton.	Teddington.
Enfield.	Tottenham.
Hampton.	Twickenham.
Hampton Wick.	Willesden.
Hanwell.	Wood Green.
Hendon (urban).	Staines (rural).
Heston & Isleworth.	

The Barnet Water Company supply in—

Finchley.	South Mimms.
Friern Barnet.	

The Colne Valley Water Company supply in—

Ruislip-Northwood.	Wealdstone.
Hendon (rural).	Harrow.
Greenford (part of).	

The Rickmansworth Water Company supply in Uxbridge rural district, but as regards most of the parishes it is reported that wells are also used. This Company also supply the greater part of Greenford and the parish of Harlington in the Staines Rural District.

The South-West Suburban Company supply in—

Staines (rural).

Southall-Norwood.

Staines (urban).

Feltham.

In the urban district of Uxbridge the district council is the water authority. The parish of Shepperton in Staines (rural) is supplied by a company on the south side of the river.

The above-mentioned are the main sources of supply, but as has been said this account does not pretend to be a complete and precise one.

The most noteworthy fact in connection with the water supply during 1906 arose in connection with a complaint made to the County Council by the Guardians of St. Marylebone as to the quality of the water supplied to their schools, situated in the district of Southall-Norwood, by the South-West Suburban Company. On receiving this complaint inquiry was at once made into the matter by Dr. Windle, the local medical officer of health, and myself.

About the date when this complaint was received by the County Council, I received a visit from Dr. Taylor, the county medical officer of Berkshire, who desired to know whether any complaints had been made in Middlesex as to the quality of the water supplied by the South-West Suburban Company. The reason of his asking this was that the Berkshire County Council, within whose area this

Company also supply water, had this matter under consideration, in view of a recently issued report to the Local Government Board by Dr. Manby, one of the Board's medical inspectors, to which he directed my attention.

The report referred to is No. 241, dated 27th Aug., 1906. It deals with the sanitary circumstances and administration of the Windsor rural district, in the County of Berkshire, and has special reference to the need of a drainage system in the parishes of Sunninghill and Sunningdale. The South-West Suburban Company supply drinking water in these parishes, and in reporting on the works of this Water Company, Dr. Manby writes as follows :—

“The Company take their water from the Thames at Egham. The works are cramped in area, and there are no sedimentation tanks or storage reservoirs there. The water passes through beds of shingle, of polarite and of sand, each bed being about 3 feet thick. The water is afterwards pumped direct to the mains. Hence it follows that the more water there is used the less efficient filtration it gets. . . . The Company have for some months been considering the question of increasing their filtration area by erecting another filter bed in the only available space remaining at the works. It is to be hoped that the Company will not only do this but that they will purchase additional land and provide thereon adequate subsidence tanks and storage reservoirs so that deliberate filtration of the Thames water may be possible.”

He adds that samples of water are examined every four months by a bacteriologist on behalf of certain sanitary authorities, and that in several reports which he saw the opinion was expressed that “there had been a too rapid filtration of the water forming the sample.”

The subject of the quality of the water supplied in the district of Southall-Norwood by this Water Company, it appears from the annual report on the district for 1901, had been the source of anxiety during that year, and had necessitated representation by the district council to the Company.

On the present occasion the local medical officer of health communicated with the Water Company, and the County Council communicated the facts to the Local Government Board.

As regards the percentage of houses supplied from a public water service ; in the following districts it is said to be 99 to 100 per cent., namely :—

Acton.	Hendon.
Chiswick.	Heston and Isleworth.
Ealing.	Hornsey.
Edmonton.	Southgate.
Finchley.	Tottenham.
Greenford.	Twickenham.
Hampton.	Wealdstone.
Hampton Wick.	Wembley.
Hanwell.	Willesden.
Harrow.	Wood Green.

In Friern Barnet it is reported that nearly all the houses are on a public supply.

Two districts, Feltham and Ruislip-Northwood, return 80 per cent., and Staines (urban), Sunbury and South Mimms return 90 per cent. or higher on a public supply. The remaining ten districts make no return as to the number supplied from a public source.

In the case of 18 districts it is stated that 99 to 100 per cent. of the houses are supplied on a constant system. These will be found set out in the sanitary tables at the end of this report.

In reference to local wells, it appears that during 1906 twenty-six were closed as polluted in the following districts: Acton, Edmonton, Enfield, Heston and Isleworth, Hornsey, Ruislip-Northwood, Southall-Norwood, Sunbury, Twickenham, and Staines (rural); whilst 51 wells were cleansed or repaired.

In three districts new wells were sunk, namely:—Southall-Norwood, 1; Staines (urban), 8; and Staines (rural), 18.

In last year's report reference was made to the need of a public water supply in the hamlet of Poyle, in the Staines rural district. The medical officer of health reports that the difficulty connected with the provision of this supply has not yet been got over. He also states that the mains of the Rickmansworth Water Company are to be extended to the village of Sipson, and suggests the desirability of carrying them on to the old village of Harmondsworth Moor.

SEWERAGE AND SEWAGE DISPOSAL.

It will not be necessary in the present report to deal with this matter at length as this was done in 1904; it will suffice to bring the subject up to date so far as reference is made in the district reports for 1906.

Before doing this it may be remarked that all the *urban* districts are now provided with a main system of sewers and sewage disposal works, except Feltham and Greenford; whilst in the case of Hayes the sewerage is still in course of construction. In the case of the four rural districts, in Hendon all parts of the district are provided with main sewers; in Uxbridge it would appear that all parts have

sewerage systems, except Ickenham and Northolt, inasmuch as no remarks to the contrary are made by the medical officer of health; and, in the case of South Mimms, it is stated that the villages of South Mimms and Potters Bar have satisfactory systems of sewerage and sewage disposal. As regards the remaining rural district, namely, Staines, it does not appear that there is any main drainage system in any part of the area, although in the case of two villages, namely Harmondsworth and Sipson, it is to be gathered from the remarks of the medical officer of health that houses have been connected to storm water drains and this has given rise to difficulties, as the result of which apparently the authority have sought the advice of an outside engineer. In the parish of Ashford, which has an estimated population of some 7,000 inhabitants, cesspools exist, and a special rate is levied for the cleansing of these by the sanitary authority. Dr. Morris states that the number cleansed during 1906 in Ashford was 1,605, as compared with 381 in the remainder of the district.

The references in this year's reports, to which attention may usefully be directed, are the following:—

Acton.—Dr. Thomas gives a short but interesting history relating to the sewage of Acton, which may well be placed on record:—

The disposal of the sewage of the district is in a transition stage, and the works authorised in the Acton Sewage Act of 1905 are in hand. The development of the district rendered it absolutely necessary that arrangements should be made to deal with the increasing volume of sewage, as the treatment which it undergoes at present cannot be deemed adequate or efficient.

Prior to 1855, the sewage of the district emptied untreated into the Thames, the rain water falling upon a small margin of the district along the western boundary drained into Sutton Lane watercourse, which conveyed it through Chiswick into the Thames. Most of the houses existing in Acton in 1855 drained into the Stamford Brook, which coursed through Acton, Fulham and Hammersmith, and emptied into the Thames at the latter place. Under the Metropolitan Management Act of 1855, the Stamford Brook sewer, together with other sewers, was vested in the Metropolitan Board of Works. The latter body diverted the Stamford Brook from the Thames, and connected it with the sewers of the Metropolitan main drainage system, thereby causing the sewage and drainage of Acton to flow into the Metropolitan system of sewers. No difficulty arose until the district developed towards the late seventies, but in 1882 an injunction was obtained to prevent the district of Acton from sending any further soil water into the Stamford Brook. The population of the district at that time was estimated at 18,000 inhabitants.

In consequence of the injunction, a provisional order was obtained, which authorised the Local Board of Health to acquire lands and to construct and maintain thereon works for the purification and disposal of the sewage and drainage coming from part of the parish. These works, when they were opened, provided for the treatment of the sewage by the International Sewage Purification Company's process. The sewage was precipitated in tanks by ferrozone, and was filtered through a polarite filter. Those tanks—3 in number—had a capacity of about 500,000 gallons. Subsequently the works were altered, and the tanks were utilised as septic tanks, in which the sewage was first treated. It was then distributed over coke breeze filters, and the effluent discharged into the Thames. For a time, this

system answered well, and produced good results, but as the district developed, the amount of sewage passing through the tank and filters increased, and the results became less satisfactory. The Council was unable to enlarge the tanks or the filters; but under the Act of 1905, power was obtained to send the whole of the soil sewage into London, and to discharge the storm overflow water into the Thames. The contractors are engaged at the present time in altering the works and constructing a large storm water sewer through Acton and Chiswick into the Thames. The works are under the direction of Sir Alexander Binnie, and will probably be completed in about a year's time.

Edmonton.—A short description of the sewerage system, which also serves the district of Southgate is given, and it is stated that owing to growth of population it will be necessary to introduce a supplementary scheme ere long.

Feltham.—Schemes for providing a main drainage scheme are under consideration.

Finchley.—Dr. Taylor writes as follows in regard to the sewerage and sewage works:—

“The filter beds number 16 and cover a total area of about 27,000 square yards. Many of the beds are in a far from satisfactory condition and require thorough reconstruction before efficient work can be expected from them. In their present state they are incapable of sufficiently purifying the sewage, consequently the effluent from them has to be treated by surface irrigation over a large area of land, with a view of further purification, before being discharged into the brook.

“Having regard to the rapid growth of the District, and the condition of the existing works, it has been evident

for some time past that further expenditure would be necessary. Various schemes have been considered by the Public Health Committee, and on November 12th, 1905, the Council resolved to proceed with the extension of the low level sewer and the construction of storm water filters, for which a loan had been sanctioned as far back as February, 1903. In addition, the Council decided to construct works capable of dealing with a portion of the low level sewage, and thus greatly relieve the present filter beds and heavy daily pumping.

“The extension of the low level, or tunnel, sewer was carried out by direct labour, and completed in March last. The remainder of the work is being executed by contract, according to the plans and under the superintendence of the Council’s Surveyor, Mr. C. J. Jenkin. Good progress has been made, and it is anticipated that the whole of the additions will be finished early this year.

“The outfall channel of the low level sewer has been formed in such a way that all storm water from four to six times the average dry weather flow will be deflected on to the storm water beds, whilst any quantity over six times the dry weather flow will be discharged direct into the brook. These storm-water beds are four in number, constructed of clinker, and intended to be used as percolating filters.

“The remainder of the new installation will consist of a coarse screen, detritus and Dortmund sludge tanks in duplicate, an open septic tank, and two primary and secondary percolating filter beds.”

Greenford.—It is reported that an inquiry was held by the Local Government Board in reference to an application for a loan for the purchase of land for the purposes of sewage disposal, an Isolation Hospital, &c.

Hayes.—Dr. Higginson reports that there are reasonable grounds for thinking that all premises in the area of the district in which the sewers have been completed, will be connected with them within twelve months. The only unsewered part is in the north-east corner of the district, where there is but little population.

Hendon (urban).—New filter beds have been completed at the sewage works.

Ruislip-Northwood.—A Local Government Board inquiry was held in reference to an application for a loan for proposed extension of the sewerage system. At a later date as the result of a visit of one of the Board's inspectors to the sewage disposal works, it was recommended that a consulting engineer be called in to report and advise as to any necessary alterations.

Southall-Norwood.—The subject of extension of the sewage works, owing to the growth of the district is receiving attention.

Hendon (rural).—Additional land for sewage treatment was brought into use at the sewage farm at Stanmore, and the provision of an additional septic tank has been ordered for the Pinner Sewage Farm.

In the Sanitary Tables at the end of this report full details are given in statistical form as to the work carried out in each district in connection with the drainage of premises and the construction or reconstruction of drains.

DAIRIES, COWSHEDS AND MILKSHOPS.

In reference to the administration of the Orders and Regulations relating to Dairies, Cowsheds and Milkshops, the most important matter to be noted is the issue, in January, 1907, of the second report by the Royal Commission on the relation of human to bovine tuberculosis, and the conclusion at which the Commissioners have arrived. This will be found set out at length earlier in this volume, under the section dealing with phthisis and other tuberculous disease. The conclusion is one of vast importance, as proving the fact that it is possible for human beings to be infected by the milk of tuberculous cows, and will no doubt result in more stringent measures than are at present enforced for preventing its occurrence.

In a previous County Report (1904), detailed reference was made in explanation of the powers which at present exist under the Orders of 1885 and 1899, and especially to the power which district councils, as the local authorities under these Orders, have of causing examinations to be made by veterinary surgeons of milch cows in their districts with a view to the discovery of tuberculous disease of the udder, and early in 1906, on an instruction of a Committee of the County Council, a circular letter was addressed to each medical officer of health to ascertain, firstly, the approximate number of milch cows kept in the County, and secondly, the extent to which veterinary surgeons were employed with a view to the discovery of tuberculous disease of the udder amongst these cows. Regarded as an attempt to stimulate interest in this part of local administration, little evidence is contained in the annual reports for the year that it was attended with much success, at least so far as relates to those districts having the largest number of milch cows.

Thus, so far as information is available from these and from the replies received to the above-mentioned letter, it appears that the urban district councils of Staines and Uxbridge have for several years past employed a veterinary surgeon to report on the condition of cowsheds and milch cows, and that in the borough of Hornsey a veterinary inspector has been appointed. In the case of Teddington Dr. Günther reports that the district council appointed a veterinary surgeon "to examine periodically the milking cows in the district," and a report as to his second inspection was received in December, 1906. The medical officers of health of the rural districts of South Mimms and Staines recommend the employment of a veterinary surgeon, and in the reports on Edmonton and Hampton Wick, reference is made to the desirability of such a course.

In Enfield, Harrow, Ruislip-Northwood and Willesden it appears a veterinary surgeon is employed, if in any case it is thought necessary. In Acton some two years ago under somewhat similar circumstances, a veterinary surgeon was employed as regards one instance.

In reply to the letter mentioned above, information was not forthcoming as regards eleven districts. From the particulars given in some of this year's reports, and in the replies received, it appears that the approximate number of milch cows in the County, exclusive of those districts not giving information, was 4,012.

The greatest number was in Hendon (urban), about 500, and in Uxbridge (rural), over 400. The numbers in the other districts will be seen from the following table.

The total number of cowsheds registered is returned as 364.

Dairies, Cowsheds, and Milkshops.

District.	No of Cowsheds registered.	No. of Cows.	No. of Dairies and Milkshops registered.	If Regulations adopted and date.	Contraventions of Regulations.	
					Cowsheds.	Dairies and Milkshops.
<i>Urban.</i>						
Acton ..	3	100	69	yes 1890	—	—
Brentford ..	3	—	56	yes 1890	—	2
Chiswick ..	1	6	30	yes 1900	—	—
Ealing (<i>Borough</i>) ..	8	120	38	yes 1903	—	—
Edmonton ..	3	54	54	yes 1899	3	6
Enfield ..	33	386	81	yes 1900	18	13
Feltham ..	none	—	2	yes —	—	—
Finchley ..	11	177	29	yes 1900	10	2
Friern Barnet ..	5	32	13	yes —	3	—
Greenford ..	7	—	7	yes —	1	1
Hampton ..	10	130	5	yes 1905	—	—
Hampton Wick ..	1	12	2	yes —	—	—
Hanwell ..	3	50	15	yes 1905	—	—
Harrow ..	10	—	5	yes 1899	12	1
Hayes ..	3	300	3	yes —	—	—
Hendon ..	26	500	26	yes 1887*	34	5
Heston and Isleworth ..	16	—	52	yes 1900	28	86
Hornsey (<i>Borough</i>) ..	3	45	68	yes 1899	2	20

Kingsbury ..	..	2	30	1	yes	1901	—	—	—
Ruislip-Northwood ..	..	19	186	8	yes	1905	56	—	6
Southall-Norwood ..	..	7	317	20	yes	1899	—	—	1
Southgate ..	..	10	130	17	yes	1889	—	—	—
Staines ..	..	13	80	15	yes	1899	4	—	—
Sunbury ..	..	6	95	6	no*	—	—	—	—
Teddington ..	..	9	48	20	yes	—	5	—	2
Tottenham ..	..	19	—	190	yes	1900	3	—	6
Twickenham ..	..	6	120	40	yes	—	—	—	—
Uxbridge ..	..	7	—	10	yes	—	—	—	—
Wealdstone ..	..	3	—	10	yes	1897	1	—	—
Wembley ..	..	11	250	13	yes	1905	—	—	2
Willesden ..	..	5	115	132	yes	—	3	—	19
Wood Green ..	..	5	9	38	yes	1891	—	—	—
<i>Rural.</i>									
Hendon ..	..	28	—	20	yes	—	8	—	8
South Mimms ..	..	5	—	—	yes	—	—	—	—
Staines ..	..	35	301	13	yes	1888	—	—	—
Uxbridge ..	..	28	419	24	yes	—	—	—	—
The County ..	..	364	4,012	1,132	—	—	191	—	180

Hendon (urban).—New regulations have been drafted.

* Sunbury.—It has been decided to adopt regulations.

There are no cowsheds in Feltham

The references in the annual reports on this subject are as follows:—

Acton.—Dr. Thomas reports that 71 persons are registered as milksellers, or a proportion of one milk store to every 732 inhabitants. Of these three only are cow-keepers, and the bulk of the milk consumed comes from sources outside the district. This it is pointed out restricts the control which the local authority can exercise over the milk supply. Under the Acton Improvement Act, 1904, however, the district council possesses additional powers in regard to milk from tuberculous cows, but no information is given as to action having been taken during the year under this Act. It appears that 25 of the milk shops are shops in which dairy produce only is sold, and 46 or 65 per cent. (as compared with 80 per cent. in London) are general shops in which various other articles are sold.

Edmonton.—Dr. Lawrence states that most of the milk supplied in the district is brought in from farms outside. The number of cowkeepers in the district is three, one less than in 1905, owing to the fact that one cowkeeper gave up keeping cows upon being required to improve the conditions under which they were kept. The sanitary inspector reports, as regards the cleansing of milk utensils, that two dairymen have obtained special steam apparatus for this purpose, making four in all in the district who have such appliances. The other milk dealers still use an ordinary copper in which to boil water for cleansing.

Finchley.—Dr. Taylor refers to the fact that the amount of milk obtained from cows in the district is steadily diminishing, and he estimates that more than half the quantity consumed is brought in by rail. The number of cows in Finchley in 1905 was 227, as compared with 177

towards the end of 1906. The half-yearly cleansing and limewhiting of the cowsheds has been carried out. The condition as to cleanliness of cows in some sheds necessitated cautions being given, and it was also necessary to warn some cowkeepers that those employed in milking must comply with the regulation requiring them to wash their hands before milking the cows. In one large cowshed lavatory basins, soap and towels, have been provided for the purpose.

Hayes.—Dr. Higginson reports that there are three dairies and cowsheds in the district, and that the largest of these supplies milk chiefly outside the district. No remarks are made as to the condition of the premises.

Hendon (Urban).—In the report of the sanitary inspector it is stated that cowsheds and milk premises have been periodically visited, and it is found that the cowsheds are kept in better condition than formerly. The following improvements were effected in 1906:—One dilapidated and badly drained shed was pulled down and a new one erected, whilst in two other instances the drainage was reconstructed, the paving relaid, and the means of light and ventilation increased. New regulations have been drafted and submitted to the Local Government Board.

Heston and Isleworth.—Dr. Steegmann writes, as regards the cowsheds, dairies and milkshops, that “although none are in a really bad condition, it is to be feared that it would be difficult to find one that could not be improved.”

Kingsbury.—In this district a new cowshed to accommodate about 30 cows has been constructed.

Ruislip-Northwood.—Dr. Hignett states that he has personally inspected all the cowsheds and milk premises, and with few exceptions the conditions were satisfactory.

Water from the Colne Valley waterworks is supplied to all but two premises; in one of these this supply is to be laid on, in the other the supply is from a well and is satisfactory.

Southall-Norwood.—Dr. Windle, writing as to the cowsheds, says they are all situated on the outskirts of the district, and that the cows are only stalled or partially stalled during the winter. Great improvements as to drainage, lighting, ventilation, and water supply, have been effected in recent years, but he does not consider the standard of cleanliness maintained is so good as it should be. All the cowsheds, with one exception, are provided with refrigerators. As regards the milk shops the regulations are satisfactorily complied with in most respects.

Southgate.—The regulations are complied with in a satisfactory manner.

Staines (urban).—Improved drainage was provided in four cowsheds as the result of action by the Sanitary Authority.

Sunbury.—Up to the end of the year this district had not adopted regulations in regard to this class of premises, but I understand that it has now been decided to do so. A special report on the condition of cowsheds, &c., was asked for from the medical officer of health by the Local Government Board.

Teddington.—The District Council decided to employ a veterinary inspector to examine cows periodically, with a view to the discovery of any suffering from tuberculous disease of the udder. The result of the second examination was received in December, when the Veterinary Surgeon, Mr. Still, reported that up to that date three cows had been found which were not in a satisfactory condition,

and that they had been disposed of. The cowkeeper owning these allowed his other cows to be subjected to the Tuberculin test with satisfactory results. The Sanitary Committee passed a recommendation that in future all cows, the condition of which was suspicious, should be tested. The greater part of the milk supplied in the district is said to come from farms in the neighbourhood, but outside the district, or else from farms at a distance.

Tottenham.—The greater part of the milk supply is imported into the district. The cowsheds in the district are said to be old and not up to modern requirements.

Uxbridge (urban).—The District Council employ a veterinary inspector to examine periodically and report on the cows and cowshed premises, and his report is appended to the annual report of the medical officer of health. It is stated that tuberculous disease of the udder was found in one cow during the year, but no particulars are given as to the action taken.

Wealdstone.—Much of the milk supplied in the district is obtained from outside sources. The cowsheds and other milk premises in the district are said to be maintained in a satisfactory condition.

Wembley.—The medical officer of health recommends that in order to carry out the requirements of Regulation 17, “each owner of cowsheds shall be asked to provide, in a suitable place in such cowsheds, an iron washstand, soap and towels, and shall require each milker before starting work to thoroughly cleanse his hands; to provide clean aprons or smocks for the men, and also a white cap for the milker or a clean loin cloth or sheet for the animals.”

Wood Green.—There are five registered cowkeepers, but only nine cows in all are kept, these being for advertising purposes. In two of the sheds alterations and improvements have been effected. Evidently most of the milk supply is imported. This district possesses special powers under the Wood Green District Council Act, 1903.

Hendon (rural).—Dr. Campbell Gowan reports that, whilst the condition of the cowsheds is fair, it is necessary to keep the owners under constant supervision in order to attain this end. One cowshed which had been closed for some time was put into sanitary condition, and is now in use again. Improvements have been effected in other premises.

South Mimms.—Dr. Gruggen again recommends that the sanitary inspector be empowered to call in a veterinary surgeon to examine cows for the purpose of detecting tuberculous disease of the udder, under the Order of 1899. Apparently no action is taken on this recommendation which is repeated annually.

Staines (rural).—Dr. Morris calls attention to the fact that the regulations in force in the district are those adopted twenty years ago, and suggests the adoption of more modern regulations. He also points out that the examination of cows requires skilled knowledge, and that a veterinary surgeon is the proper person to make this. He expresses the opinion that the district council have been extremely lenient with the smaller dairymen. No details are given as to the actual conditions found in the various premises during the course of inspection, and this, no doubt, is due to the fact that the work of sanitary inspection in this extensive district devolves apparently upon one sanitary inspector.

Uxbridge (rural)—This district is one of those having more milch cows than others in the County. The only remark made by the medical officer of health in his annual report is to the effect that all cowsheds, dairies, and milk shops “have been inspected twice yearly.”

SLAUGHTER-HOUSES.

In the section dealing with by-laws later in the report information is given as to the authorities which have made by-laws as to this class of premises and it appears that in the following districts no by-laws are in force, namely,

Feltham,	Kingsbury,
Greenford,	Staines (urban),
Hampton,	Sunbury,
Hampton Wick,	Wembley,
Staines (rural).	

This is based upon information supplied by the medical officers of health in reply to inquiry made during 1906. As regards the above districts it should be pointed out that in Feltham there are three slaughter-houses, in Hampton five, in Hampton Wick one, in Staines (urban) three, in Sunbury two and in Wembley six. It is obviously desirable, therefore, that such by-laws should be adopted.

According to the returns in the district reports the total number of these premises in the County is 209, and 59 contraventions of the by-laws are reported, including three in the case of Hampton, in which district however there appear to be no by-laws in force.

In the reports relating to Brentford and Edmonton it is stated that two and four slaughter-houses respectively are licensed, and five in the case of Willesden.

The medical officers of Harrow, Tottenham, Willesden and Uxbridge (urban) recommend the consideration of the question of erecting public slaughter-houses. In the case of Uxbridge (urban) Dr. Lock states that all the slaughter-houses but one are wooden structures and difficult to keep clean. Further, he reports that the erection of a new slaughter-house was sanctioned by the district council against his advice—in which I concurred—owing to the shut-in and unsuitable position of the site.

OFFENSIVE TRADES.

The return as to the number of premises in which any of the offensive trades, as set out in section 112 of the Public Health Act, 1875, are carried on is as follows:—Acton three, Chiswick one, Greenford one, Hampton one, Staines (urban) one, Uxbridge (urban) one, Wembley one, Willesden one.

This differs from the return given in the previous year in that there is an increase in Acton, in Chiswick and in Willesden of one each, whilst no premises are reported from Brentford, as against one in 1905, and none in Uxbridge (rural) as against two in 1905.

The possibility of the establishment anew of businesses coming within the category of offensive trades is a matter which needs to be carefully watched in the various districts of the County and especially in the more rural parts, owing to their proximity to the metropolis, inasmuch as the tendency is for such trades to move away from the more congested and crowded parts. It is a matter of especial importance in districts having only rural powers, as in these section 112 and the following sections of the Public Health Act dealing with offensive trades do not apply unless the rural authority has been vested by the Local Government Board with urban powers for the purpose of these sections.

Having regard to this the rural district of Staines during 1906, applied for and were granted urban powers under these sections and the medical officer reports that a Committee is considering the framing of by-laws. By-laws in regard to offensive trades have been adopted by the district council of Greenford and were approved by the Local Government Board in October, 1906. It appears from the report on this district that certain premises used for bone boiling and tallow melting will shortly cease to be occupied for this purpose.

HOUSE REFUSE COLLECTIONS AND DISPOSAL.

The details as to the frequency of collection of house refuse in each district are to be found set out in the sanitary tables at the end of this report. Summarising these for the County it appears that in 18 districts there is a regular collection once a week, and in 8 once a fortnight. As regards the remaining districts, no information is given in the case of 6 districts; whilst as to the others various arrangements are in force: thus in Hornsey collection is made once a week from houses and twice a week from flats, in Teddington a daily collection is carried out, and this, it is reported, continues to work well. In Feltham collection is made three days a week, and in Staines (rural) a weekly collection is made in the parishes of Hanworth and Ashford.

The refuse is to a considerable extent disposed of on "shoots." Owing to the extension of houses in the County it is yearly becoming more difficult to find sites for this method of dealing with offensive refuse without giving rise to complaints of nuisance. Such complaints arose during 1906, more especially in the case of a shoot near New Southgate, about which complaint was made to the County Council, and which formed the subject of a report to the

Committee, and of a communication on the matter being made to the district council concerned, with the result that the depositing of refuse on this site ceased.

Several local authorities have already provided dust destructors, and others have decided to do so. This applies to the following :—

Acton.	Southall-Norwood.
Brentford.	Southgate.
Chiswick.	Tottenham.
Hampton.	Twickenham.
Heston & Isleworth.	Wood Green.

Whilst as regards other districts the desirability of erecting dust destructors is receiving attention.

Dr. Andrew recommends a dust destructor for Hendon (urban).

MORTUARY ACCOMMODATION.

In the following districts mortuary accommodation has been provided :—

Acton.	Southgate.
Brentford.	Staines (urban).
Chiswick.	Sunbury.
Ealing.	Teddington.
Edmonton.	Tottenham.
Finchley.	Twickenham.
*Friern Barnet.	Uxbridge (urban).
Hampton.	Wealdstone.
Hampton Wick.	Wembley.
Harrow.	Willesden.
Hendon (urban).	Wood Green.
Heston & Isleworth.	
Hornsey.	†Hendon (rural).
Southall-Norwood.	‡Staines (rural).

* Friern Barnet District Council has made arrangements for the use of Finchley mortuary.

† In the Hendon Rural District a mortuary has been provided at Pinner.

‡ Shepperton Parish has made arrangements for the use of Sunbury mortuary.

In the case of Feltham it is reported that a mortuary has not yet been provided, a suitable site not having been obtained.

The mortuary in Hendon (urban) is an iron building. The need of a suitable brick building is again reported on.

FACTORY AND WORKSHOP ACT.

The main proceedings taken in connection with the administration of this Act by the various authorities in the County are set out in the following table. During the year a circular letter on the subject of Home Work was addressed by the Secretary of State for Home Affairs to medical officers of health, drawing attention to the provisions contained in sections 107-114 of the Act.

The Home Secretary specially called attention to the powers under section 108, the object of which is to prevent industrial work being carried on “in dwellings
“ under less wholesome conditions than are required by
“ law in workshops, and thus dealing with some of the
“ worst features of what is known as the ‘sweating
“ system.’ ”

He also pointed out the necessity of completely and correctly filling in the forms relating to the administration of the Act supplied to medical officers of health.

TABLE SHOWING PROCEEDING OF SANITARY AUTHORITIES

	Acton.	Brentford.	Chiswick.	Ealing.	Edmonton.	Enfield.
1. <i>Inspection.</i>						
Factories (including Factory Laundries) .. ..	..	..	49	5	25	23
Workshops (including Workshop Laundries)	77	..	194	454	266	} 800
Workplaces (other than Outworkers' premises, included in Part 3)	4	..	41	..	26	
Total Inspections ..	81	..	294	459	317	823
2. <i>Defects Found.</i>						
Nuisances under Public Health Acts	36	..	17	96	19	53
Offences under Factory and Workshop Act	1	..	..	6	..	22
Total defects found ..	37	..	17	102	19	75
3. <i>Home Work.</i>						
(a) Number of names of Outworkers received from employers twice in the year	282	..	25	8	..	33
(b) Ditto once in the year ..	27	..	..	8	..	..
(c) Number of addresses of Outworkers received from other Councils .. .	17	..	26	13	44	7
(d) Number of addresses of Outworkers forwarded to other Councils	13	..	19	4	..	11
(e) Number of inspections of Outworkers' premises ..	426	..	55	..	90	35
Outwork in unwholesome premises—Instances ..	..	..	..	..	..	..
Outwork in infected premises—Instances	4	..	..	1	..	..
4. Registered Workshops—						
Total	420	..	206	241	175	172
5. Underground Bakehouses in use at the end of the year ..	8	..	4	7	1	1

UNDER THE FACTORY AND WORKSHOP ACT.

Feltham.	Finchley.	Friern Barnet.	Greenford.	Hampton.	Hampton Wick.	Hanwell.	Harrow.	Hayes.	Hendon.	Heston and Isleworth.	Horsey.
14	13	16	..	3	4	..	23	12	14	38	47
{ ..	319	39	..	95	42	69	56	3	76	240	420
{ ..	30	30	..	..	..	10	30	..	6	70	68
14	362	85	..	98	46	79	109	15	96	348	535
..	59	5	..	11	..	3	15	..	22	124	124
..	4	..	..	9	..	..	..	..	2	..	25
..	63	5	..	20	..	3	15	..	24	124	149
..	..	..	..	3	..	..	2	..	..	13	92
..	2	..	..	..	3	..	7	..	..	..	52
..	5	2	..	..	2	15	2	..	6	2	66
..	2	..	..	3	..	..	1	..	..	3	73
..	5	3	..	..	6	22	17	..	6	20	108
..	..	..	..	..	..	..	1	..	..	..	..
..	..	..	..	..	3	..	..	..	..	..	4
..	160	30	..	32	21	53	53	1	148	238	307
..	3	1	..	..	..	4	3	..	2	..	5

TABLE SHOWING PROCEEDING OF SANITARY AUTHORITIES

	Kingsbury.	Ruislip-Northwood.	Southall-Norwood.	Southgate.	Staines.	Sunbury.
1. Inspection.						
Factories (including Factory Laundries) .. .. .	..	24	18	12	12	3
Workshops (including Workshop Laundries)	2	48	76	68	6	18
Workplaces (other than Outworkers' premises, included in Part 3) .. .. .	..	..	12	28	6	..
Total Inspections ..	2	72	106	108	24	21
2. Defects Found.						
Nuisances under Public Health Acts .. .. .	..	9	3	41	..	..
Offences under Factory and Workshops Act .. .. .	..	..	2	..	4	..
Total defects found ..	..	9	5	41	4	..
3. Home Work.						
(a) Number of names of Outworkers received from employers twice in the year .. .. .	..	..	2	..	..	..
(b) Ditto once in the year .. .. .	..	..	..	..	..	..
(c) Number of addresses of Outworkers received from other Councils .. .. .	..	..	2	11	..	2
(d) Number of addresses of Outworkers forwarded to other Councils .. .. .	..	..	..	..	..	..
(e) Number of Inspections of Outworkers' premises .. .. .	..	..	..	11	..	..
Outwork in unwholesome premises—Instances.. .. .	..	..	..	..	..	..
Outwork in infected premises—Instances .. .. .	..	..	..	..	..	..
4. Registered Workshops—Total ..	1	15	39	84	103	..†
5. Underground Bakehouses in use at the end of the year ..	..	1	1	..	..	..

† In Sunbury no Register of Workshops is kept.

UNDER THE FACTORY AND WORKSHOP ACT—continued.

Teddington.	Tottenham.	Twickenham.	Uxbridge.	Wealdstone.	Wembley.	Willesden.	Wood Green.	Hendon Rural.	South Mimms Rural.	Staines Rural.	Uxbridge Rural.
28	153	12	..	18	..	69	..	7	..	6	12
} 60	668 {	30	88	71	31	474	225	34	..	56	37
		12	..	..	1	..	19	..	..	..	..
88	821	54	88	89	32	543	244	41	..	62	49
11	25	16	21	4	1	284	17	3	..	..	5
..	16	..	..	..	..	3	..	..	..	..	..
11	41	16	21	4	1	287	17	3	..	..	5
..	21	5	9	1	..	13	9	..	..	..	..
2	62	..	..	..	..	28	..	..	..	..	..
2	633	2	..	..	1	100	95	..	..	..	..
..	42	..	..	..	..	18	19	..	..	..	..
4	532	2	..	1	..	100	74	..	..	..	..
..
..	..	..	..	..	..	6*	1	..	..	..	..
30	301	141	68	33	18	527	123	16	..	31	37
..	8	3	1	..	3	25	1	..	..	..	1

* In all instances the patient was removed to the hospital, the premises disinfected, and information given to the Medical Officer of Health of the district from where the work was obtained. In no instance was it found necessary to make an order under Section 110.

FOOD AND DRUGS ACTS.

In this section is set out certain information as to the administration of these Acts. This has been compiled from the quarterly reports of the County Analyst, whilst the tables relating to the samples taken in each district and of certain articles for the year ended March 31st, 1907, are from the report of the General Purposes Committee.

This information is set out here for the information of district medical officers of health.

Milk.

The results of analysis summarised from the quarterly reports of the County Analyst as regards milk during the year 1906, are as follows :—

Milk.

Quarter Ended.	Total Samples Examined.	Inferior.	Samples with added water.	Fat abstracted.	Fat abstracted and added water.	Preservatives.
March 31st	692	34	11	7	2	—
June 30th ..	669	41	8	27	—	—
Sept. 30th ..	774	53	33	12	—	19
Dec. 31st ..	800	33	16	9	1	3
Total ..	2,935	161	68	55	3	22

The above samples of milk include milk, separated milk, and skim milk.

All samples of milk are examined in order to see if preservatives have been added. As regards those which were found to contain preservatives the particulars are as follows:—

Of the 22 samples of milk found to contain a preservative:—

In 2 samples formic aldehyde was found, in one case 1·5 parts and in the other 5 parts of formaldehyde per 100,000 parts.

The remaining 20 samples all contained boron preservative. The samples, and the proportion of preservative expressed as boracic acid, which they contained were as follows:—

Number of Samples.	Boracic Acid, grs. per gallon.	Number of Samples.	Boracic Acid, grs. per gallon.
1	21·1 grs.	1	56 grs.
2	32 "	1	58·2 "
1	34·75 "	1	58·5 "
1	35 "	1	62 "
1	42 "	1	91·75 "
1	44 "	1	28 grs. and 6 per cent. fat extracted
1	44·5 "		
2	44·6 "		
1	49·6 "	1	64 grs. and 6 per cent. fat extracted
1	50 "		
1	52 "		

In July, 1906, the Local Government Board issued a circular to authorities under the Food and Drug Acts, on the subject of the addition of preservatives to milk. After drawing attention to the recommendation of the Departmental Committee on Preservatives and Colouring Matters in Food, viz., "that no preservatives should be added to milk," it is stated in the circular that "since the report of the Committee was made the Board have from time to time had before them further evidence on the subject, and this supports the conclusions of the Committee, not only as to the objections to the use of preservatives on the ground of public health, but also as to the ability of milk traders to conduct their business without use of preservatives," and the Board express the opinion that action under the Acts is desirable in regard to preservatives.

The Board suggested—

- (1) That public analysts should be requested to report quarterly how many milk samples had been examined for the presence of preservatives.
- (2) That milk traders should be notified by circulars or otherwise that action would be taken in instances where preservatives were found in milk.

In the case of Middlesex, it had previous to this been the custom to take proceedings in cases where preservatives had been reported by the analyst, and in last year's report (1905) account was given as regards the cases in which prosecutions had been instituted. Reference was also made to the fact that, owing to the increase in the number of samples found to contain preservatives, the County Council had made representations to the Local Government

Board and the Board of Agriculture as to the need of having the recommendation of the Departmental Committee, namely, "that the use of any preservative or colouring matter whatever in milk offered for sale be constituted an offence under the Act" carried into effect.

On receipt of the circular of the Local Government Board, the Council, acting on the suggestion made, prepared and issued the following notice:—

"COUNTY COUNCIL OF MIDDLESEX.

"SALE OF FOOD AND DRUGS ACTS.

"PRESERVATIVES IN MILK.

"The Local Government Board have recently issued a circular on the subject of Preservatives in Milk, and have suggested that notice should be given by the County Council to Milk Traders, that proceedings will be taken in cases where Preservatives are reported in Milk.

"The County Council of Middlesex have in the past taken proceedings in cases of samples of Milk certified by the Public Analyst as containing Preservatives, and *Notice is hereby given that such proceedings will continue to be taken in similar cases in the future.*

"RICH'D. NICHOLSON,
" *Clerk of the County Council.*

"GUILDHALL,
"WESTMINSTER.
"20th August, 1906."

Butter

The number of samples of butter examined and the results of the analyses were as follows:—

1st Quarter..	115 Samples..	1 inferior quality.
2nd „ ..	108 „ ..	1 adulterated— 81°/o Margarine.
3rd „ ..	108 „ ..	2 adulterated— 85°/o foreign fat. 100°/o „
4th „ ..	125 „ ..	9 adulterated— 1, 60°/o Margarine. 1, 90°/o „ 3, 95°/o „ 4, 100°/o „

Preservatives.

In addition to the preservatives mentioned above examination for these was also made in the case of other articles of food and during the year the following samples were found to contain them:—

Brawn..	..	42·9 grs. of borax per pound.
Ham ..	..	80 grs. of borax per pound.
Ham, Tongue } and Chicken }	129 grs. of borax per pound and artificially coloured.	

Arsenic in Glycerine.

Samples of glycerine, 17 in number, were taken during the year and two of these were found to contain small quantities of arsenic. These were considered by the Committee and it was decided to have full inquiry made with a view to ascertaining if possible where the glycerine was manufactured, and this was done by one of the Council's inspectors.

In the following tables are set out for the year ended March 31st, 1907, the number of samples taken in each sanitary district and the number of different classes of articles:—

*Food and Drugs Acts**
(year ended March 31st, 1907.)

Sanitary Districts.	Estimated Population Middle 1906.	Number of Samples taken.	Number of Samples Adulter- ated.	Number of Con- victions.
<i>Urban.</i>				
Acton	52,000	203	14	9
Brentford	15,906	125	3	3
Chiswick	33,873	218	4	2
Ealing (<i>Borough</i>) ..	48,316	224	12	11
Edmonton	‡58,840	237	19	16
Enfield	52,797	183	6	5
Feltham	5,773	35	—	—
Finchley	30,750	204	5	4
Friern Barnet	‡13,038	24	1	1
Greenford	1,200	30	—	—
Hampton	9,000	53	3	2
Hampton Wick	2,630	32	—	—
Hanwell	19,776	98	6	5
Harrow	13,697	121	3	3
Hayes	3,000	21	1	—
Hendon	‡28,201	126	3	3
Heston and Isleworth ..	33,767	214	8	10
Hornsey (<i>Borough</i>) ..	86,877	319	8	6
Kingsbury	805	42	—	—
Ruislip-Northwood ..	4,755	76	1	1
Southall-Norwood ..	‡21,602	116	7	6
Southgate	25,500	73	1	—
Staines	7,046	68	6	4
Sunbury	4,680	27	1	—
Teddington	17,000	71	—	1
Tottenham	134,605	289	13	10
Twickenham	27,000	124	2	7
Uxbridge	9,300	120	1	1
Wealdstone	10,760	78	2	3
Wembley	6,000	30	—	—
Willesden	141,714	619	44	42
Wood Green	46,000	204	5	4
<i>Rural.</i>				
Hendon	11,476	148	4	4
South Mimms	2,803	25	1	—
Staines	21,824	121	1	2
Uxbridge	12,743	213	5	4
<i>The County</i>	‡1,015,059	4,911	190	169

‡Including Institutions.

*This table is compiled from the Annual Report of the General Purposes Committee.

Table showing the results of Analyses of Samples of certain Articles under the Sale of Food and Drugs Acts during the year ended 31st March, 1907.

—				Number of Samples Exami- ned.	Samples Adul- terated.	Percentage Adul- terated.
Milk .. .. .	..	..	..	3,038	157	5·2
Butter .. .. .	..	..	..	495	19	3·8
Cheese .. .. .	..	..	..	194	1	0·5
Margarine .. .. .	..	..	..	159	1	0·6
Lard .. .. .	..	..	..	156	—	—
Bread .. .. .	..	..	..	—	—	—
Flour .. .. .	..	..	..	13	—	—
Tea .. .. .	..	..	..	—	—	—
Coffee (including Coffee and Chicory) .. .. .	..	..	..	107	5	4·7
Cocoa .. .. .	..	..	..	50	—	—
Sugar .. .. .	..	..	..	20	—	—
Mustard .. .. .	..	..	..	21	—	—
Confectionery and Jam .. .. .	..	..	..	121	—	—
Pepper .. .. .	..	..	..	91	—	—
Wine .. .. .	..	..	..	31	—	—
Beer .. .. .	..	..	..	1	—	—
Spirits .. .. .	..	..	..	72	4	5·6
Drugs .. .. .	..	..	..	82	—	—
Other articles .. .. .	..	..	..	260	3	1·1
Total				4,911	190	3·8

FOOD INSPECTION AND UNSOUND FOOD.

The difficulty of exercising effective supervision and control over the meat supply of the public owing to the existence of private slaughter-houses is again referred to by several of the local medical officers of health in their

reports for 1906, and the advantage which would be derived for this purpose by the existence of public slaughter-houses is indicated by them.

In the report on Tottenham Dr. Butler-Hogan recommends the appointment of an inspector specially qualified on the subject of meat and food inspection.

The action taken during the year as regards unsound food is referred to in the sanitary tables sent in from sixteen of the districts and from these the following is compiled :—

Animals seized	5
Articles or parcels seized	396
Articles or parcels surrendered ..	147

In addition to the above the following quantities were surrendered in Hornsey: meat, 16 lbs.; fish, 18 st.; fruit, 45 lbs.

CUSTOMS AND INLAND REVENUE ACTS, 1890 AND 1891.

Under the provisions of these Acts application may be made to medical officers of health by owners of houses intended for the use of the working classes for certificates whereby they may claim abatement or exemption from inhabited house duty.

The information given in the annual reports is not complete and it is not possible to set out the number of inspections and the number of certificates granted or refused.

SCHOOL HYGIENE AND MEDICAL SUPERVISION OF SCHOOL CHILDREN.

The area comprised within the administrative county is for the purposes of elementary education partly under the

control and supervision of the Education Committee of the County Council and partly under the Education Committees of the District Councils and Municipal Boroughs. For the purpose of secondary education the whole county is under the control of the former, but for elementary education the following districts have control within their own areas :—

Acton.	Heston and Isleworth.
Chiswick.	Hornsey.
Ealing.	Tottenham.
Edmonton.	Twickenham.
Enfield.	Willesden.
Finchley.	Wood Green.
Hendon (urban).	

In the remaining districts elementary education is under the control of the Education Committee of the County Council. They are 23 in number, as follows :—

Urban—	
Brentford.	Ruislip-Northwood.
Feltham.	Southall-Norwood.
Friern Barnet.	Southgate.
Greenford.	Staines.
Hampton.	Sunbury.
Hampton Wick.	Teddington.
Hanwell.	Uxbridge.
Harrow.	Wealdstone.
Hayes.	Wembley.
Kingsbury.	
Rural—	
Hendon.	Staines.
South Mimms.	Uxbridge.

As regards the first named, or the autonomous districts, medical officers to the Education Committees appear to have been appointed in the case of Ealing, Hornsey, and Tottenham, and in each case the medical officers of health hold the appointment. In the case of the others, so far as information is available, no definite appointments have apparently yet been made, but in the case of Acton, Finchley, and Willesden, from the statements contained in the reports of the medical officers of health, the work of medical supervision has evidently been definitely initiated under the supervision of these officers.

In the case of the second list of districts, that is, the area which, for the purpose of elementary education, is under the control of the County Council, during the early part of 1906, the subject of the medical supervision children in public elementary schools was under the consideration of the Education Committee of the County Council, and I was requested to prepare a report on the matter. This will be found set out in detail in the County report relating to 1905.

In view of the fact that an Education Bill containing provisions as to medical supervision of school children was at the time before Parliament, action as to this matter was postponed by the Committee.

The subject is one not free from difficulty, and it may be well to repeat what I stated in the report of 1905, as regards the Elementary Education County.

“ From a glance at the diagrammatic map which forms
“ the frontispiece of this report, it will be seen that the
“ area included in the above is extensive, that the schools

“ are of necessity very scattered and far apart, and that
“ to arrange for a systematic medical supervision of the
“ children which shall be complete and comprehensive, and
“ at the same time shall not add, to an unnecessary extent,
“ to the education rate, is a matter of considerable difficulty.
“ It is obvious that nothing of a systematic nature or
“ deserving the name of supervision from a medical point
“ of view can be done without the provision of staff for
“ the purpose.”

Pending the adoption of a definite and comprehensive scheme for systematic supervision, I was afterwards requested to report as to arrangements which might be made with a view to uniform and more effective control of infectious complaints amongst scholars at elementary schools, and at a later date as to the extent to which teachers might assist, more especially as regards dealing with children suffering from defective vision.

Apart from this I have on several occasions visited elementary schools, and in conjunction with the local medical officer of health examined children owing to the outbreak of infectious disease, and have examined candidates in connection with the granting of Junior County Scholarships and Pupil Teacher Scholarships, and also reported to the Committee on the physical condition and fitness of one of the head teachers of a school.

In reference to the subject of school hygiene and the medical supervision of school children, I would direct attention to the fact that in the last memorandum as to annual reports of medical officers of health issued to these officers by the medical officer of the Local Government Board,

the following paragraph is included as being one of the subjects concerning which the Board desires to obtain information :—

“ Schools, especially public elementary schools ; sanitary condition of, including water supply ; action taken in relation to the health of the scholars and for preventing the spread of infectious disease.”

SANITARY STAFF.

As the result of special inquiry as to the sanitary staff, which may be rightly regarded as engaged in connection with the public health work of each district, it is possible to set out greater detail on the matter in the present report. Before doing so, it may be well to repeat what was stated in last year's report as to female health visitors or inspectors—

“ This class of official has of late years been increasingly employed in the London boroughs and other large towns and districts, and their services have been found to be invaluable in dealing with matters which cannot from the nature of things be equally well dealt with by male officials. Thus, in connection with tenement dwellings they are able to give instruction and advice as to domestic cleanliness which would be resented by the housewife if given by a man ; in connection with the work arising under the Factory and Workshop Acts, they are much better able to inspect premises where female workers are employed ; whilst in attempting to reduce infantile mortality they are especially invaluable in tendering instruction and assistance to mothers as to how to feed and manage infants, and there can be no doubt that advice on

this matter, given at the time when a mother is actually concerned in the bringing up of a young family, is incalculably of greater use than any such information which can be given to her by lectures, or as part of a curriculum when she is only a potential mother. In other directions also the work of female inspectors has been found useful."

Such inspectors have been appointed in Acton, Edmouton, Tottenham, Willesden, and during 1906 one was appointed for a period of six months in Heston and Isleworth. The medical officers of health of Enfield, Hanwell, Hendon (urban), and Southall-Norwood make reference in their reports to the advantage of appointing female inspectors or health visitors. In Wood Green the matter is being considered.

In the following account, sanitary inspectors and assistant sanitary inspectors of each district are all included in the term "inspectors."

In the borough of Ealing and urban district of Willesden, powers have been obtained in a private Act to appoint more than one inspector of nuisances.

Acton.—3 Inspectors, 1 Female Health Visitor.

Brentford.—1 Inspector.

Chiswick.—3 Inspectors, 1 Clerk. Men are obtained from Works Department when necessary.

Ealing.—2 Inspectors, 1 Clerk.

Edmouton.—3 Inspectors, 1 Female Inspector, 2 Clerks, 1 Disinfector, and 6 men employed in various duties in the Public Health Department.

Enfield.—3 Inspectors, 2 Clerks.

Feltham.—1 Inspector, who is also Surveyor.

Finchley.—2 Inspectors, 1 Clerk, 1 Disinfector, 1 handyman.

Friern Barnet.—1 Inspector. A labourer is borrowed from the Surveyor's Department to help in testing and stripping drains.

Greenford.—1 Inspector, who is also the Surveyor.

Hampton.—1 Inspector.

Hampton Wick.—1 Inspector, who is also the caretaker of the offices of the District Council.

Hanwell.—1 Inspector.

Harrow.—1 Inspector.

Hayes.—1 Inspector, who is also the Surveyor.

Hendon (urban).—1 Inspector.

Heston and Isleworth.—1 Inspector, 2 Assistant Inspectors, 1 Clerk, 1 Labourer, 1 Female Inspector (appointed in December for six months).

Hornsey.—2 Inspectors, 1 Clerk, 1 Veterinary Inspector, under Contagious Diseases of Animals Act; 5 Inspectors, under Employment of Children Act.

Kingsbury.—1 Inspector, who holds other offices.

Ruislip-Northwood.—1 Inspector, who is also the Surveyor.

Southall-Norwood.—1 Inspector.

Southgate.—1 Inspector, 1 Assistant Inspector and 1 Disinfector.

Staines (urban).—1 Inspector, who is also the Surveyor, and “2 Assistants acting in general capacities.” A Veterinary Inspector is also employed in connection with the Dairies, Cowsheds and Milkshops Regulations.

Sunbury.—1 Inspector, who is also the Surveyor, and 1 Junior Clerk who assists the Surveyor and Inspector.

Teddington.—1 Inspector, who is given assistance when required for disinfection.

Tottenham.—6 Inspectors, 1 Female Health Visitor, 1 Female Inspector, 4 Clerks, 3 Disinfectors, and 1 Mortuary Attendant. It is recommended in the Annual Report that a special Meat Inspector be appointed.

Twickenham.—2 Inspectors.

Uxbridge (urban).—1 Inspector, who is also Water Inspector. A Veterinary Inspector is also employed in connection with the Dairies, Cowsheds and Milkshops Regulations.

Wealdstone.—1 Inspector, who is also the Surveyor.

Wembley.—1 Inspector.

Willesden.—6 Inspectors, 3 Female Health Visitors and 3 Clerks.

Wood Green.—3 Inspectors and 1 Clerk.

Hendon (rural).—1 Inspector. Labourers' help is given.

South Mimms (rural).—1 Inspector, who is also the Surveyor.

Staines (rural).—1 Inspector, who holds other offices.

There is also under the control and supervision of the Surveyor an assistant, who is concerned with the work of drain reconstruction and who carries out the disinfection of premises.

Uxbridge (rural).—1 Inspector.

LEGISLATION.

The only Act passed during the Session of 1906, to which reference need be made as affecting public health administration in the County is the County Council of Middlesex (General Powers) Act, 1906.

In addition to certain powers making further provision for preventing the pollution and obstruction of streams in the County the powers having relation to public health, which were granted in this Act, are those in regard to ice cream and to gipsy encampments. The latter have already been set out earlier in this report. The former contain provisions (*a*) for regulating the manufacture, storage and sale of ice cream, &c.; (*b*) requiring itinerant vendors to exhibit the name of the manufacturer on the barrow.

These provisions are to be administered by the district authorities and it will therefore be incumbent on medical officers of health, in order to deal effectively with the matter to keep a record of any premises upon which ice creams are made, and also of itinerant vendors, who are in the habit during the hot weather of frequenting the various districts.

ADOPTIVE ACTS, BY-LAWS AND REGULATIONS.

With a view to getting information as completely as possible as to the Adoptive Acts, By-laws and Regulations

which are in force in each of the thirty-six urban and rural districts in the County, I sent at the end of 1906 a circular letter to each medical officer of health, together with a blank form on which were set out the various Acts and By-laws which can be adopted by Sanitary Authorities.

Replies have been received from all except the medical officer of health of South Mimms and, as the result of these replies, in a few instances supplemented by information which I have been able to get in other ways, the following account and tables have been drawn up.

(1) *Adoptive Acts.*

The Adoptive Acts so far as public health administration is concerned are—

- (a) The Infectious Diseases (Prevention) Act, 1890.
- (b) The Public Health Amendment Act, 1890.
Part III.
- (c) The Housing of the Working Classes Act, 1890.
Part III.

The following table shows the Acts which have been adopted in the various districts in the County.

Adoptive Acts in force.

				Infectious Diseases (Prevention) Act, 1890.	Public Health Act, Amendment Act, 1890, Part iii.	Housing of the Working Classes Act, 1890, Part iii.	Remarks.
<i>Urban.</i>				1	2	3	
Acton .. ..	..	..	Yes	Yes	Yes	Yes	
Brentford .. ..	..	..	Yes	Yes	Yes	Yes	
Chiswick .. ..	..	..	Yes	Yes	Yes	Yes	
Ealing (<i>Borough</i>) ..	..	..	Yes	Yes	Yes	Yes	
Edmonton .. ..	..	..	Yes	Yes	Yes	Yes	
Enfield .. ..	..	..	Yes	Yes	No	No	
Feltham .. ..	..	..	Yes	No	No	No	
Finchley .. ..	..	..	Yes	Yes*	Yes	Yes	*(2) Also Parts ii. and v.
Friern Barnet .. ..	..	..	Yes	Yes	No	No	
Greenford .. ..	..	..	Yes	Yes	Yes	Yes	
Hampton .. ..	..	..	Yes	Yes	Yes	Yes	
Hampton Wick .. ..	..	..	Yes	Yes	Yes	Yes	
Hanwell .. ..	..	..	Yes	Yes	Yes	Yes	
Harrow .. ..	..	..	Yes	Yes	Yes	Yes	
Hayes .. ..	..	..	Yes	Yes	No	No	
Hendon .. ..	..	..	Yes	Yes	Yes	Yes	
Heston & Isleworth ..	..	..	Yes	Yes	Yes	Yes	
Hornsey (<i>Borough</i>) ..	..	..	Yes	Yes	Yes	Yes	
Kingsbury .. ..	..	..	Yes	Yes	No	No	
Ruislip-Northwood ..	..	..	Yes	Yes	No	No	
Southall-Norwood ..	..	..	Yes	Yes	No	No	
Southgate .. ..	..	..	Yes	Yes	Yes	Yes	
Staines .. ..	..	..	Yes	Yes	No	No	
Sunbury .. ..	..	..	No	Yes	No	No	
Teddington .. ..	..	..	Yes	Yes	Yes	Yes	
Tottenham .. ..	..	..	Yes*	Yes	Yes	Yes	*(1) Sect. 4, 5, 6, 8, 10, 12, 15, 16, 17, 18, 20.
Twickenham .. ..	..	..	Yes	Yes	Yes	Yes	
Uxbridge .. ..	..	..	Yes	Yes	No	No	
Wealdstone .. ..	..	..	Yes	Yes	No	No	
Wembley .. ..	..	..	No	Yes	No	No	*(1) Chief Pro- visions em- bodied in Wil- lesden Local Act, 1887.
Willesden .. ..	..	..	No*	Yes	No	No	
Wood Green .. ..	..	..	Yes	Yes	Yes	Yes	
<i>Rural.</i>							
Hendon .. ..	..	..	Yes	Yes	—	—	
South Mimms .. ..	..	..	—	—	—	—
Staines .. ..	..	..	Yes	Yes	No	No	
Uxbridge .. ..	..	..	Yes	Yes	—	—	

2. By-Laws.

It is necessary to class the by-laws into those which can be adopted by both urban and rural authorities and those which can only be adopted by urban authorities unless the Council of a rural district has been vested by an Order of the Local Government Board (section 276, P.H.A. 1875) with the powers of an urban authority under the enactments which enable the by-laws being made.

In the following table and the notes which follow information is given as to the by-laws in force in the various districts in the County :—

BY-LAWS IN FORCE.

District.	URBAN AND RURAL AUTHORITIES.								URBAN AUTHORITIES.								RURAL
	Common Lodging Houses. (P.H.A., 1873, s. 80.)	Cleansing, &c., and Removal of Refuse. (P.H.A., 1873, s. 44.)	Houses let in Lodgings. (P.H.A., 1873, s. 90.)	Tents, Vans, Sheds, &c. (H.W.C.A., 1855, s. 9 (2).)	Public Mortuaries. (P.H.A., 1875, s. 141.)	Slaughter Houses. (P.H.A., 1873, s. 80.)	Prevention of Nuisances. (P.H.A., 1873, s. 44.)	Keeping of Animals. (P.H.A., 1873, s. 44.)	Offensive Trades. (P.H.A., 1873, s. 113.)	New Streets and Buildings. (P.H.A., 1873, s. 137, and P.H.A.A., 1890, 23.)	Removal of Offensive Matters and House Refuse. (P.H.A.A., 1890, s. 26.)	Public Conveniences. (P.H.A.A., 1890, s. 20.)	Public Baths and Washhouses. (B. & W.A., 1846, s. 34.)	Buildings, Limited Powers. (P.H.A.A., 1890, s. 23 (3).)			
<i>Urban.</i>																	
Acton	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No			
Brentford	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes			
Chiswick	No	No	Yes	No	No	Yes	No	No	No	Yes	No	No	No	No			
Ealing (<i>Borough</i>)	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	No	No	No	No			
Edmonton	Yes	Yes	Yes	No	Reg*	Yes	Yes	Yes	No*	Yes	Yes	No	Reg	No			
*Enfield	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	No	No	No			
Feltham	No	No	No	No	No	No	No	No*	No*	Yes	No	No	No	No			
Finchley	Yes*	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes*	No	No	No	No			
Friern Barnet	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No			
*Greenford	No	Yes	No	No	No	No	Yes	Yes	Yes	Yes	No	No	No	No			
Hampton	No*	Yes	No	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No			

**Notes on the above table relating to the by-laws in force.*

(a) *Common Lodging-Houses.* It is stated that in the following districts there are no common lodging houses, viz.: Finchley, Hampton, Hendon (urban), Hornsey, Ruislip-Northwood, Sunbury, Teddington, Wood Green, Uxbridge (rural).

(b) *Houses-let-in-lodgings.* In the return relating to Hendon (urban) it is noticed that amendment of the existing by-laws is needed, and in Ruislip-Northwood it has been decided to apply to the Local Government Board for approval of by-laws.

In the case of Teddington the adoption of by-laws is under consideration.

As regards Uxbridge (urban), it is reported that the adoption of by laws was recommended by the medical officer of health, but his advice was not acted on by the District Council.

In the case of the by-laws now in force in Willesden it is stated that they are inapplicable because the rateable value set out in the exemption clause is so low as to exclude from the operation of the by-laws all the tenement houses in the district. Their revision is under consideration.

(c) *Public Mortuaries.* Wood Green. It is stated that the existing mortuary is only a temporary building.

Edmonton. Regulations as to the depositing of bodies in the mortuary were issued in 1903.

(d) *Keeping of Animals.* (P.H.A. 1875, sec. 113).

Feltham. The framing of by-laws is under consideration.

Staines (rural). The rural district Council have recently been vested with urban powers so far as relates to this section, and the framing of by-laws is now under consideration.

(e) *Offensive Trades.* As regards Edmonton, Finchley and Sunbury it is stated that there are no offensive trades carried on in these districts.

In the district of Feltham by-laws are under consideration.

The Staines rural district council have recently applied for and been vested with urban powers relating to these trades, and by-laws are under consideration.

(f) *New Streets and Buildings.* In the case of Hendon (urban) and Ruislip-Northwood, new by-laws relating to this matter have been submitted to the Local Government Board for approval.

In the case of Brentford, Finchley, Harrow, Teddington and Wembley the existing by-laws are under consideration with a view to their revision.

(g) *Public Conveniences.* By-laws have been framed by the Wood Green district Council and have been submitted for approval to the Local Government Board.

(h) *Buildings, Limited Powers.* (P.H.A.A.A. 1890, sec. 23 (?)).

It will be noted in the above table that by-laws as to new streets and buildings are permissive to urban authorities only. Rural authorities can

only adopt all the clauses of the model by-laws if invested with urban powers by an order of the Local Government Board.

In the case of rural districts where the full requirements of the model by-laws as to new streets and buildings are too extensive, it is possible for the district Council by adopting Part iii. of the Public Health Act Amendment Act, 1890, to obtain power to make by-laws in regard to new buildings more limited in character and relating to health conditions only.

In the case of the four rural districts in Middlesex, no information is forthcoming as regards the rural district of South Mimms, but in the case of the other three, namely, the rural districts of Hendon, Staines and Uxbridge the full code of by-laws appears to be in operation.

In addition to the by-laws which have been set out above, the following may also be referred to.

By-laws *may* be made by both urban and rural authorities as regards :—

Hop-pickers' Lodgings (P.H.A. 1875, sec. 314).

The need for such does not arise in this County.

Fruit and Vegetable Pickers' Lodgings (F.P.L.A. 1875, sec. 314).

These have not been adopted in any district, and in a great part of the County there is obviously no need for them. In the case of the rural

district of Staines, however, it is stated that the adoption of the by-laws has been recommended on several occasions by the medical officer of health.

Public Lodging Houses (H.W.C.A. 1820, sec. 62).

Under the Housing Acts local authorities may acquire or erect "lodging houses for the working classes," and this expression includes separate houses or cottages whether containing one or several tenements. For the purpose of the management, use, and regulation of these lodging houses they may make by-laws. It does not appear that such by-laws have been made by any authority in the County except Twickenham.

Public Cemeteries (P.H.A. 1879, sec. 2).

By-laws under this Act it is stated have been adopted by the following district councils: Acton, Chiswick, Hampton, Sunbury, Twickenham, Wealdstone, and Staines (rural). In regard to Wembley it is reported that Regulations were made in 1895.

By-laws *may* be made by urban authorities only as regards:—

Swimming Baths.

Adopted in Tottenham and Wood Green.

Markets (P.H.A. 1875, sec. 167).

By-laws have been made in respect to markets, in Brentford.

(3) *Regulations.*

The Regulations which may be made by both urban and rural authorities and to which reference may be made in this report are :—

- (a) *Regulations relating to Dairies, Cowsheds, and Milkshops* (under the Dairies, Cowsheds, and Milkshop Orders 1885 and 1899).

These are referred to under the section dealing with this class of premises, to which reference may be made.

- (b) *Communication between Drains and Sewers* (P.H.A. 1875, sec. 21).

Regulations as to the making of such communications appear to have been made by the following districts :—

Acton.	Ruislip-Northwood.
Chiswick.	Southgate.
Edmonton.	Staines (urban).
Enfield.	Sunbury.
Friern Barnet.	Teddington
Hampton.	Twickenham.
Hanwell.	Wood Green.
Hayes.	Hendon (rural).
Hendon (urban).	Staines (rural).
Kingsbury.	Uxbridge (rural).

In the case of Willesden this matter is provided for in the Willesden Local Act, 1887.

No information is available regarding Southgate and South Mimms.

As regards the other districts, no regulations appear to have been made.

(c) *Removal to Hospital of infected persons brought by ship or boat* (P.H.A. 1875, sec. 125).

Regulations, it is stated, have been made by the Urban District Councils of

Twickenham and
Uxbridge.

(d) *Management of post-mortem rooms* (P.H.A. 1875, sec. 143).

Regulations have been made by

Acton.
Teddington.
Twickenham.

*SUMMARY of the Reports of the Medical
Officers of Health of the thirty-six
Districts in the County.*

In this section the districts are given in alphabetical order, first the thirty-two urban districts, then the four rural districts.

In the preceding sections of this report, which deal with subjects, the more noteworthy matters relating to public health administration in the County during 1906 have already been referred to at length as regards each district. It will not therefore be necessary in the following summary to do more than draw attention to such matters as have been mentioned in the foregoing sections and, in addition, to note any other subjects which may have been reported on by the local medical officers of health, and which have not already had reference made to them.

Further, it has been thought well to give in this part particulars as to each district regarding the acreage, the population and the annual and average rates of mortality, so that the conditions now prevailing in each district may be compared with those of past years. In this connection it is necessary to repeat what has been said in the early part of the report, that practically all the districts have

during the last ten years undergone considerable changes, tending to make them more urban in character, and as regards the mortality rates it is to be remembered that correction which is now possible owing to the assistance of the County Council in supplying each medical officer of health with a list of what are known as "outside" deaths, was not made in the majority of the reports until two years ago. The death-rates of most of the districts for the year 1906 are therefore relatively higher compared with the average death-rates of the preceding decade. Notwithstanding this, the former, for the most part, compare favourably with the latter.

The death rates given in the following summary are not corrected for age and sex distribution.

Finally, in the sanitary tables following this part are set out particulars of the work done in each district.

It is a matter of satisfaction to record that for the year 1906 all the reports, with one exception, namely that relating to the urban district of Hayes, are printed.

ACTON URBAN DISTRICT.

Medical Officer of Health, D. J. Thomas, M.R.C.S., L.R.C.P.

Area in acres 2,304

Census, 1901. Estimated, 1906.

Population .. 37,744 52,000

Birth-rate (1906) 29·4

Average birth-rate (1896-1905).. .. 30·6

Death-rate (1906) 13·2

Average death-rate (1896-1905) .. 13·2

Infantile mortality (1906) 125

Average infantile mortality (1896-1905) 153

Correction is now made for deaths of residents occurring outside the district.

Matters chiefly dealt with in report—

Infantile mortality; influence of “missed” cases in spread of scarlet fever; twenty-five years’ survey of measles prevalence in district; diarrhoea; phthisis; improvements at isolation hospital; alterations in sewage disposal; offensive trades; decision to erect a refuse destructor.

BRENTFORD URBAN DISTRICT.

Medical Officer of Health, Henry Bott, M.R.C.S., L.R.C.P.

Area in acres	1,091
	<i>Census, 1901. Estimated, 1906.</i>
Population ..	15,171 15,906
Birth-rate (1906)	29·9
Average birth-rate (1896–1905)	34·4
Death-rate (1906).. .. .	17·0
Average death-rate (1896–1905)	16·5
Infantile mortality (1906)	140
Average infantile mortality (1896–1905)	162

Correction is now made for deaths of residents occurring outside the district.

Prominent features of report—

The high death-rate from all causes and high mortality amongst children under one year of age ; prevalence of scarlet fever and diphtheria ; absence of measles prevalence ; need of dealing with old, badly arranged and insanitary houses.

CHISWICK URBAN DISTRICT.

Medical Officer of Health, F. C. Dodsworth, L.R.C.P.

Area in acres 1,249

Census, 1901. Estimated, 1906.

Population .. 29,809 33,873

Birth-rate (1906) 25·1

Average birth-rate (1896-1905) .. 28·9

Death-rate (1906) 13·0

Average death-rate (1896-1905) .. 13·2

Infantile mortality (1906) 115

Average infantile mortality (1896-1905) 133

Correction is made for the deaths of residents occurring outside the district during 1906.

This is a short report and reference is briefly made to the prevalence throughout the year of scarlet fever, and an outbreak at the end of the year thought to be due to school contact. Measles was also prevalent; other matters chiefly referred to: phthisis, isolation hospital.

EALING (BOROUGH).

Medical Officer of Health, C. A. Patten, L.R.C.P., M.R.C.S.

Area in acres 3,225

	<i>Census, 1901.</i>	<i>Estimated, 1906.</i>
Population	33,031	48,316
Birth-rate (1906) .. ..	..	24·2
Average birth-rate (1896-1905) ..	..	21·1
Death-rate (1906) .. ..	..	12·8
Average death-rate (1896-1905)	..	10·9
Infantile mortality (1906) .. ..	..	129
Average infantile mortality (1896-1905)		114

Correction is made for “ outside ” deaths during 1906.

Chief matters dealt with—

Increased general death-rate and infantile mortality; prevalence of diphtheria, and the provision of diphtheria antitoxin gratuitously by the authority in necessitous cases; phthisis; additions and improvements in connection with sewage disposal; public elementary schools.

EDMONTON URBAN DISTRICT.

Medical Officer of Health, S. C. Lawrence, M.B., Ch.B.,
D.P.H., M.R.C.S., L.R.C.P.

Area in acres 3,894

		<i>Census, 1901.</i>	<i>Estimated, 1906.</i>
Population	{ District ..	44,911	56,818
	{ Institutions ..	1,988	2,022
Birth-rate (1906) .. ..		..	33·1
Average birth-rate (1896-1905)		..	35·0
Death-rate (1906) .. ..		..	13·7
Average death-rate (1896-1905)		..	15·7
Infantile mortality (1906) .. ..		..	131
Average infantile mortality (1896-1905)			154

For several years past correction has been made by including "outside" deaths and excluding deaths of non-residents.

The more important references in report are to—

Infant mortality; scarlet fever—a localised outbreak early in the year; measles; diarrhoea; phthisis; isolation for infectious disease; housing, movable dwellings and van dwellers; sewerage; dairies and cowsheds; re-appointment of female inspector.

ENFIELD URBAN DISTRICT.

Medical Officer of Health, J. J. Ridge, M.D., B.S., B.A., &c.

Area in acres	..	..	12,601
	<i>Census, 1901.</i>		<i>Estimated, 1906.</i>
Population	..	42,738	52,797
Birth-rate (1906) ..	..	..	25·2
Average birth-rate (1896-1905)		..	28·3
Death-rate (1906) ..	..	..	11·2
Average death-rate (1896-1905)		..	13·0
Infantile mortality (1906)	..	..	110
Average infantile mortality (1896-1905)			138

Correction is made for "outside" deaths.

This is a short report. The more noteworthy matters dealt with are—

Infant mortality and the recommendation that a female inspector should be appointed; prevalence of measles; houses unfit for habitation; complaint as to a dust shoot; new sewage works.

FELTHAM URBAN DISTRICT.

Medical Officer of Health, C. D. Morris, L.R.C.P., M.R.C.S.

Area in acres	..	..	1,790.
	<i>Census, 1901. Estimated, 1906.</i>		
Population	..	4,534	5,773
Birth-rate (1906)..	..	..	24·7
„ (1905)..	..	..	33·3
Death-rate (1906)	..	..	11·2
„ (1905)	..	..	13·4
Infantile mortality (1906)	..	..	118
„ „ (1905)	..	..	147

The parish of Feltham was created a separate urban district in April, 1904, previous to which date it formed part of the Rural District of Staines.

Correction is made for “outside” deaths.

Prominent features of report—

Scarlet fever; need of isolation hospital; need of sewerage scheme and action taken; need of mortuary; need of by-laws as to pig keeping and offensive trades; medical inspection of school children; existence of shallow wells and occasional unsatisfactory quality of water supplied by Water Company; construction of increased area of filters to remedy this; desirability of bacteriological examination of water supply.

FINCHLEY URBAN DISTRICT.

Medical Officer of Health, G. C. Taylor, M.A., M.D., D.P.H.

Area in acres	..	..	..	3,384
	<i>Census, 1901. Estimated, 1906.</i>			
Population ..	22,126		30,750	
Birth-rate (1906) ..	..	..	..	25·1
Average birth-rate (1896-1905) ..			..	24·7
Death-rate (1906) ..	..	..	..	11·7
Average death-rate (1896-1905)			..	10·7
Infantile mortality (1906)	..	..		117
Average infantile mortality (1896-1905)				105

Correction for “outside” deaths has been made for several years.

Main features of report—

Influences affecting infantile mortality ; measles and whooping cough, and school notification of ; phthisis ; sewerage and sewage disposal ; milk supply and dairies and cowsheds ; school hygiene and medical supervision of children.

FRIERN BARNET URBAN DISTRICT.

Medical Officer of Health, F. A. Spreat, M.R.C.S., D.P.H.

Area in acres	..	..	..	..	1,303
<i>Census, 1901. Estimated, 1906.</i>					
Population	{ District	8,816		10,625	
	{ Asylum	2,750		2,413	
Birth-rate (1906)	..	..	..	..	27·4
Average birth-rate (1896–1905)	..	..	..	..	27·0
Death-rate (1906)	..	..	..	..	13·2
Average death-rate (1896–1905)	..	..	..	..	10·6
Infantile mortality (1906)	..	..	..	..	130
Average infantile mortality (1896–1905)	..	..	..	..	111

For the purpose of the above rates (1906) the population and deaths in the London County Asylum at Colney Hatch are excluded, and 24 deaths of residents occurring outside the district are included.

Prominent features of report—

Occurrence of cases of enteric fever; prevalence of measles; need of isolation hospital; sewage disposal; water supply and the provision of a constant service.

GREENFORD URBAN DISTRICT.

Medical Officer of Health, G. Hope, L.R.C.P., M.R.C.S., D.P.H.

Area in acres	3,041
	<i>Census, 1901. Estimated, 1906.</i>
Population ..	819 1,200
Birth-rate (1906)	15·8
„ (1905)	17·2
Death-rate (1906)	14·1
„ (1905)	9·0
Infantile mortality (1906)	157
„ „ (1905)	52

Correction is made for “ outside ” deaths during 1906.

Matters chiefly referred to in report—

The probability of early increase in the population and the application by the sanitary authority for a loan to acquire land for the purpose of isolation hospital accommodation, sewage disposal, etc., in the future; the adoption of by-laws as to offensive trades; action taken as regards certain offensive trade premises; absence of infectious disease; adoption of compulsory notification of measles; gipsy encampments.

HAMPTON URBAN DISTRICT.

Medical Officer of Health, Wentworth Tyndale, M.B.

Area in acres	2,036
	<i>Census, 1901. Estimated, 1906.</i>
Population ..	6,813 9,000
Birth-rate (1906)	22·0
Average birth-rate (1896-1905)	26·5
Death-rate (1906).. .. .	10·5
Average death-rate (1896-1905)	11·7
Infantile mortality (1906)	90
Average infantile mortality (1896-1905)	124

Full correction for deaths of residents occurring outside the district during each of the previous ten years is not available, hence the average death-rate compared with 1906 is relatively too low.

This is a short report. Prominent features—

Outbreak of measles and abandonment of compulsory notification; additions to isolation hospital; milk supply; disposal of house refuse and decision to erect a refuse destructor.

HAMPTON WICK URBAN DISTRICT.

Medical Officer of Health, Th. Günther, M.D.

Area in acres	1,314
	<i>Census, 1901. Estimated, 1906.</i>
Population ..	2,606 2,630
Birth-rate (1906)	15·2
Average birth-rate (1896–1905)	19·3
Death-rate (1906)	10·2
Average death-rate (1896–1905)	10·8
Infantile mortality (1906)	25
Average infantile mortality (1896–1905)	90

Correction is made for “outside” deaths during 1906.

Prominent subjects dealt with in report—

Measles and decision not to adopt compulsory notification; scarlet fever, enteric fever; improvements effected in elementary schools; dairies, cowsheds and milkshops; ice cream vendors; housing of the working classes.

HANWELL URBAN DISTRICT.

Medical Officer of Health, G. Hope, D.P.H., M.R.C.S.,
L.R.C.P.

Area in acres 1,067

Census, 1901. Estimated, 1906.

Population .. 10,438 19,776

Birth-rate (1906) 28·5

Average birth-rate (1896-1905).. .. 27·9

Death-rate (1906).. .. 12·1

Average death-rate (1896-1905) .. 11·4

Infantile mortality (1906) 131

Average infantile mortality (1896-1905) 146

Correction is made for "outside" deaths during 1906.

Matters chiefly dealt with in report—

High rate of infant mortality; scarlet fever; decision to provide isolation hospital; measles and decision not to make disease compulsorily notifiable.

HARROW URBAN DISTRICT.

Medical Officer of Health, J. Fletcher Little, M.B., M.R.C.P.

Area in acres..	..	..	2,028
	<i>Census, 1901.</i>		<i>Enumerated, 1906.</i>
Population ..	10,220		13,697
Birth-rate (1906) ..	..	..	23·2
Average birth-rate (1896-1905) ..		..	22·6
Death-rate (1906) ..	..	..	9·4
Average death-rate (1896-1905)		..	9·4
Infantile mortality (1906)	..	..	88
Average infantile mortality (1896-1905)			92

Correction is made for "outside" deaths in 1906.

Prominent features of report—

Enumeration of population in middle of 1906; action suggested as to measles and whooping cough; infantile mortality; consumption; addition to isolation hospital; desirability of transferring Mount Park district to Harrow; action as to houses-let-in-lodgings; milk supply of district.

HAYES URBAN DISTRICT.

Medical Officer of Health, J. W. Higginson, M.R.C.S.,
L.R.C.P.

Area in acres.. ..	3,311
<i>Census, 1901. Estimated, 1906.</i>	
Population ..	2,594 3,000
Birth-rate (1906).. ..	29·3
Birth-rate (1905)	32·6
Death-rate (1906)	16·6
Death-rate (1905).. ..	12·6
Infantile mortality (1906)	125
Infantile mortality (1905)	61

The parish of Hayes, till 1904, formed part of the Rural District of Uxbridge.

Correction is made for "outside" deaths in 1906.

The chief matter reported is the completion of the sewerage scheme. There appears to have been an absence of prevalence of infectious disease. Some 15 per cent. of houses are still supplied with water from local wells, but some were closed during the year. With the anticipated connection of houses with the main sewer, public water service will doubtless be made to houses not so supplied at present.

HENDON URBAN DISTRICT.

Medical Officer of Health, F. W. Andrew, M.R.C.S., L.R.C.P.

Area in acres 8,382

Census, 1901. Estimated, 1906.

Population {	District	21,685	27,546
	Institutions	765	655

Birth-rate (1906) ..	..	..	25·5
Average birth-rate (1896-1905) ..	..	..	28·4
Death-rate (1906) ..	..	..	10·9
Average death-rate (1896-1905)	..	..	12·6
Infantile mortality (1906)	..	..	102
Average infantile mortality (1895-1904)	..	..	144

Correction is made by inclusion of "outside" deaths and exclusion of deaths and population not rightly belonging to district.

Prominent features of report—

High infantile mortality and recommendation as to advisability of appointing health visitors ; need of increased isolation hospital accommodation ; scarlet fever ; need of providing a dust destructor ; sewage disposal ; housing of the working classes.

HESTON AND ISLEWORTH URBAN DISTRICT.

Medical Officer of Health, E. J. Steegmann, M.B., D.P.H.

Area in acres. 6,859

	<i>Census, 1901.</i>	<i>Estimated, 1906.</i>
Population . .	30,863	33,767

Birth-rate (1906)	33·5
Average birth-rate (1896-1905) ..	29·4
Death-rate (1906)	15·1
Average death-rate (1896-1905) ..	15·6
Infantile mortality (1906)	134
Average infantile mortality (1896-1905)	148

Correction is made (1906) by the inclusion of “outside” deaths and the exclusion of non-residents dying in the institutions. The birth-rate includes the births of non-residents.

Prominent features of report—

The high infant mortality and higher general death-rate than in 1905; causes of death of infants; decrease in diphtheria and scarlet fever; need of enlargement of isolation hospital; need of medical supervision of school children; temporary appointment of female sanitary inspector.

HORNSEY (BOROUGH).

Medical Officer of Health, H. Coates, M.D., D.P.H.

Area in acres	2,874
<i>Census, 1901. Estimated, 1906.</i>	
Population ..	72,056 86,877
Birth-rate (1906)	18·4
Average birth-rate (1896-1905)	20·6
Death-rate (1906)	8·8
Average death-rate (1896-1905)	8·6
Infantile mortality (1906)	84
Average infantile mortality (1896-1905)	93

Correction is made for "outside" deaths.

Chief matters referred to in report—

The low birth-rate ; the low mortality rates ; consumption and the need of provision of sanatorium accommodation ; increased prevalence of scarlet fever ; enlargement of isolation hospital.

KINGSBURY URBAN DISTRICT.

Medical Officer of Health, F. W. Andrew, M.R.C.S., L.R.C.P.

Area in Acres	..	..	..	1,829
		<i>Census, 1901.</i>	<i>Estimated, 1906.</i>	
Population	..	757		805
Birth-rate (1906)	..	..	..	16·1
Average birth-rate (1901-1905)			..	19·3
Death-rate (1906)	..	..	..	11·1
Average death-rate (1901-1905)	..		..	9·0
Infantile mortality (1906)		..	..	76
Average infantile mortality (1901-1905)				66

Correction is made for “outside” deaths during 1906.

There is little of note recorded as regards public health work during 1906, in this report.

RUISLIP-NORTHWOOD URBAN DISTRICT.

Medical Officer of Health, L. W. Hignett, M.B., M.R.C.S.

Area in acres	6,585
<i>Census, 1901. Estimated, 1906.</i>	
Population ..	3,566 4,755
Birth-rate (1906)	25·2
„ (1905)	25·4
Death-rate (1906)	8·2
„ (1905)	7·0
Infantile mortality (1906)	58
„ „ (1905)	69

A newly constituted urban district in 1904. Formerly a parish in the rural district of Uxbridge. Hence rates are not available previous to 1905. Correction is made for “outside” deaths.

Prominent features of report:—Occurrence of scarlet fever involving school closure; need of improvements at sewage works; need of enlargement of joint isolation hospital; adoption of by-laws as to houses-let-in-lodgings and regulations as to dairies, cowsheds and milkshops.

SOUTHALL-NORWOOD URBAN DISTRICT.

Medical Officer of Health, J. D. Windle, M.D., Ch.B.

Area in acres 2,575

Census, 1901. Estimated, 1906.

Population (District)	10,365	18,777
,, (Asylum)	2,835	2,825

Birth-rate (1906) 33·0

Average birth-rate (1894-1903).. .. 32·2

Death-rate (1906).. 12·9

Average death-rate (1894-1903) .. 10·7

Infantile mortality (1906) 154

Average infantile mortality (1894-1903) 138

In calculating the above rates the deaths and population of the London County Asylum (Hanwell) are excluded, and correction is made for "outside" deaths.

Matters chiefly referred to in report:—Infant mortality and desirability of appointing a female inspector or health visitor; scarlet fever; enteric fever; isolation hospital; quality of water supply during the year; nuisance from brickfields; school hygiene; polluted wells; dairies, cow-sheds and milkshops.

SOUTHGATE URBAN DISTRICT.

Medical Officer of Health, A. Sidney Ransome, B.A.,
M.B., D.P.H.

Area in acres	3,597
<i>Census, 1901. Estimated, 1906.</i>	
Population ..	14,993 25,500
Birth-rate (1906)	22·0
Average birth-rate (1896-1905) ..	23·4
Death-rate (1906)	10·8
Average death-rate (1896-1905) ..	9·9
Infantile mortality (1906)	106
Average infantile mortality (1896-1905)	102

Correction is made for " outside " deaths during 1906.

Chief matters dealt with in report:—Outbreak of typhoid fever; increase in infantile diarrhoea; isolation hospital and need of extension; desirability of a dust destructor; housing of working classes.

STAINES URBAN DISTRICT.

Medical Officer of Health, F. C. Tothill, M.B., C.M.

Area in acres 1905.

Census, 1901. Estimated, 1906.

Population .. 6,688 7,046

Birth-rate (1906)	24·2
Average birth-rate (1896-1905) ..	26·8
Death-rate (1906)	11·3
Average death-rate (1896-1905) ..	12·1
Infantile mortality (1906)	146
Average infantile mortality (1896-1905)	103

Correction is made for “outside” deaths during 1906.

This is a short report. Prominent features:—Absence of isolation hospital provision and of steam disinfecting apparatus; absence of prevalence of infectious disease; sufficiency of housing accommodation.

SUNBURY URBAN DISTRICT.

Medical Officer of Health, E. F. Palgrave, M.R.C.S., L.R.C.P.

Area in acres .. 2,659.

	<i>Census, 1901.</i>	<i>Estimated, 1906.</i>
Population	4,544	4,680
Birth-rate (1906) .. ..	..	24·5
Average birth-rate (1896-1905) ..	..	29·5
Death-rate (1906) .. ..	..	15·1
Average death-rate (1896-1905) ..	..	13·7
Infantile mortality (1906) .. ..	..	95
Average infantile mortality (1896-1905)		122

Correction is made by the inclusion of the deaths of 19 residents outside the district.

The medical officer of health, owing to ill-health, had left before the end of the year, and the annual report has been prepared by Dr. Thompson, who temporarily acted for him. Under these circumstances the report is short. Need of hospital accommodation is reported.

TEDDINGTON URBAN DISTRICT.

Medical Officer of Health, Th. Günther, M.D.

Area in acres..	..	..	1,214
	<i>Census, 1901. Estimated, 1906.</i>		
Population ..	14,037	17,000	
Birth-rate (1906) ..	..	..	25·7
Average birth-rate (1896-1905) ..	..	..	24·1
Death-rate (1906) ..	..	..	14·0
Average death-rate (1896-1905)	..	..	11·8
Infantile mortality (1906) ..	..	..	121
Average infantile mortality (1896-1905)			128

For the purpose of the above rates corrections have been made, thus: deaths of non-residents excluded, 8; deaths of residents outside the district included, 29.

Prominent features of report:—Scarlet fever prevalence; measles and decision not to adopt compulsory notification; housing of the working classes and Local Government Board inquiry in connection with application for loan to acquire land; veterinary inspection of cows; ice cream vendors.

TOTTENHAM URBAN DISTRICT.

Medical Officer of Health, J. F. Butler-Hogan, B.A.,
M.D., D.P.H., LL.B.

Area in acres	3,013
	<i>Census, 1901.</i> <i>Estimated, 1906.</i>
Population ..	102,541 134,605
Birth-rate (1906)	27·2
Average birth-rate (1896–1905) ..	29·9
Death-rate (1906)	12·4
Average death-rate (1896–1905) ..	13·1
Infantile mortality (1906)	131
Average infantile mortality (1896–1905)	145

Correction is made for “outside” deaths during 1906.

Prominent matters dealt with in report:—Infantile mortality; scarlet fever; enteric fever; consumption; school hygiene; dairies, cowsheds and milkshops; the marked increase in the population.

TWICKENHAM URBAN DISTRICT.

Medical Officer of Health, W. Marston Clark, M.R.C.S.,
D.P.H.

Area in acres	..	..	..	2,421
		<i>Census, 1901. Estimated, 1906.</i>		
Population	..	20,991		27,000
Birth-rate (1906)	..	..	..	30·0
Average birth-rate (1896-1905)	..	..	..	26·7
Death-rate (1906)	..	..	..	13·8
Average death-rate (1896-1905)	..	..	..	12·3
Infantile mortality (1906)	..	..	..	133
Average infantile mortality (1896-1905)	..	..	..	135

Correction is made for "outside" deaths in 1906.

Matters prominently dealt with in report:—Infants' mortality; measles outbreak; isolation hospital; consumption; and overcrowding.

UXBRIDGE URBAN DISTRICT.

Medical Officer of Health, J. L. Lock, M.A., M.B., B.C.,
M.R.C.S.

Area in acres	868
	<i>Census, 1901. Estimated, 1906.</i>
Population ..	8,585 9,300
Birth-rate (1906)	27·2
Average birth-rate (1896-1905)..	26·8
Death-rate (1906).. .. .	16·2
Average death-rate (1896-1905)	16·8
Infantile mortality (1906)	118
Average infantile mortality (1896-1905)	132

Correction is made for outside deaths in 1906.

Prominent features of report:—Infantile mortality; consumption; adoption of compulsory notification of cerebro-spinal fever; need of a steam disinfectors; need of by-laws as to tenement houses; slaughter-houses; veterinary inspection of cows.

WEALDSTONE URBAN DISTRICT.

Medical Officer of Health, G. H. Butler, L.R.C.P.,
M.R.C.S.

Area in acres 1,061

Census, 1901. Estimated, 1906.

Population .. 5,901 10,760

Birth-rate (1906) 28·1

Average birth-rate (1896-1905) .. 28·5

Death-rate (1906) 7·9

Average death-rate (1896-1905) .. 8·9

Infantile mortality (1906) 92

Average infantile mortality (1896-1905) 119

Correction is made for "outside" deaths in 1906.

Prominent features of report:—Scarlet fever; freedom from enteric; measles.

WEMBLEY URBAN DISTRICT.

Medical Officer of Health, C. E. Goddard, M.D.

Area in acres	..	..	4,564
	<i>Census, 1901.</i>		<i>Estimated, 1906.</i>
Population ..	4,519		6,000
Birth-rate (1906) ..	..	..	28·6
Average birth-rate (1896-1905) ..		..	26·4
Death-rate (1906) ..	..	..	8·8
Average death-rate (1896-1905)		..	9·0
Infantile mortality (1906)	..	..	81
Average infantile mortality (1896-1905)			100

Correction is made for "outside" deaths during 1906.

Prominent features of report:—Infantile mortality; scarlet fever; isolation hospital; cowsheds and dairies; piggeries; gipsy nuisance; school hygiene.

WILLESDEN URBAN DISTRICT.

Medical Officer of Health, W. Butler, M.B., C.M., D.P.H.

	<i>Census, 1901. Estimated, 1906.</i>	
Population	114,811	141,714
Birth-rate (1906)	30.1
Average birth-rate (1895-1905)	31.5
Death-rate (1906)	11.8
Average death-rate (1895-1905)	..	13.7
Infantile mortality (1906)	111
Average infantile mortality (1896-1905)		133

Correction for "outside" deaths has been made for many years past.

Prominent features of report:—Infantile mortality and infant feeding; diphtheria; measles and whooping cough and school influence; work of health visitors; class vital statistics; medical supervision of children in elementary schools; minimum requirements in granting certificates under Customs and Inland Revenue Acts.

WOOD GREEN URBAN DISTRICT.

Medical Officer of Health, G. H. Conolly, M.R.C.S.

Area in acres	1,625
	<i>Census, 1901. Estimated, 1906.</i>
Population ..	34,233 46,000
Birth-rate (1906)	26·7
Average birth-rate (1896-1905) ..	28·4
Death-rate (1906)	10·6
Average death-rate (1896-1905) ..	11·6
Infantile mortality (1906)	103
Average infantile mortality (1896-1905)	131

Correction has been made in the rates for 1906 by including 80 deaths of residents occurring outside the district, and excluding 12 deaths of non-residents.

Prominent features of report :—Scarlet fever prevalence ; infantile diarrhoea ; consideration of appointment of lady health visitor ; isolation hospital arrangement with Hornsey ; erection of dust destructor.

HENDON RURAL DISTRICT.

Medical Officer of Health, B. Campbell Gowan, M.R.C.S.,
L.R.C.P.

Area in acres	11,321
<i>Census, 1901. Estimated, 1906.</i>	
Population	8,647 11,476
Birth-rate (1906)	17·8
Average birth-rate (1896-1905) ..	21·1
Death-rate (1906)	8·8
Average death-rate (1896-1905) ..	9·4
Infantile mortality (1906)	82
Average infantile mortality (1896-1905)	91

Correction is made by the inclusion of 14 deaths of residents which occurred outside the district and exclusion of 6 deaths of non-residents.

Prominent features of report:—Increased infantile mortality; local prevalence of scarlet fever and diphtheria; desirability of by-laws as to pig-keeping; alteration at Pinner Sewage Farm; milk supply; complaint as to nuisance from accumulation of house refuse.

SOUTH MIMMS RURAL DISTRICT.

Medical Officer of Health, W. Gruggen, L.R.C.P., M.R.C.S.

Area in acres	6,105
	<i>Census, 1901. Estimated, 1906.</i>
Population ..	2,671 2,808
Birth-rate (1906)	21·7
Average birth-rate (1896-1905) ..	25·0
Death-rate (1906)	11·0
Average death-rate (1896-1905) ..	12·5
Infantile mortality (1906)	82
Average infantile mortality (1896-1905)	110

Correction has been made for “outside” deaths for several years.

Prominent features of report :—Need of isolation hospital provision ; desirability of veterinary examination of cows.

STAINES RURAL DISTRICT.

Medical Officer of Health, C. Dwight Morris, M.R.C.S.,
L.R.C.P.

Area in acres..	..	..	18,035
	<i>Census, 1901.</i>		<i>Estimated, 1906.</i>
Population ..	18,095		21,824
Birth-rate (1906) ..	..	..	24·0
„ (1905) ..	..	..	28·8
Death-rate (1906)..	..	..	12·1
„ (1905)..	..	..	11·5
Infantile mortality (1906)		..	112
„ (1905)		..	102

The parish of Feltham was separated from Staines Rural District in April, 1904, and figures for the area as it now is are not available for earlier years. Correction is now made for “outside” deaths.

Prominent features of report:—Outbreaks of scarlet fever in Littleton and in Hanworth; need of isolation hospital provision; absence of main sewerage, and of arrangements for cleansing cesspools except in Ashford parish; absence of arrangements for collection of house refuse except in two parishes, and complaint to Local Government Board by a resident in Harlington; desirability of better supervision of dairies and cowsheds; vesting of authority with urban powers regarding offensive trades; nuisances; need of additional mortuary accommodation; water supply; inadequacy of arrangements for inspection.

UXBRIDGE RURAL DISTRICT.

Medical Officer of Health, A. Charpentier, M.D., D.P.H.

Area in acres 23,415.

	<i>Census, 1901.</i>		<i>Estimated, 1906.</i>	
Population ..	11,058		12,743	
Birth-rate (1906) ..	..	..	..	28·1
„ (1905) ..	..	..	..	29·7
Death-rate (1906) ..	..	..	..	14·9
„ (1905) ..	..	..	..	13·0
Infantile mortality (1906)		..	..	181
„ „ (1905)		..	..	76

Correction is made for “outside” deaths.

Owing to the creation of the parishes of Hayes and Ruislip-Northwood as separate urban districts, figures are not available for an earlier date for the district as it now is constituted.

This is a short report. Prominent features:—Scarlet fever outbreak at Yiewsley; whooping cough prevalence at Northolt; high infantile mortality, but no recommendation is recorded as to any action which might be taken.

TABLES.

ADMINISTRATIVE COUNTY OF

VITAL STATISTICS OF EACH DISTRICT

1	Population estimated to Middle of 1906.	Births.		Total Deaths in the	
		Number.	Rate per 1,000 living.	Under 1 Year of Age.	
				Number.	Rate per 1,000 Births registered.
2	3	4	5	6	
<i>Urban.</i>					
Acton	52,000	1,533	29·4	193	125
Brentford	15,906	476	29·9	67	140
Chiswick	33,873	852	25·1	98	115
Ealing (<i>Borough</i>) ..	48,316	1,171	24·2	152	129
Edmon- { District ..	56,818	1,881	33·1	248	131
ton { Institutions ¹ ..	2,022				
Enfield	52,797	1,334	25·2	148	110
Feltham	5,773	143	24·7	17	118
Finchley	30,750	773	25·1	91	117
Friern { District ..	10,625	291	27·4	38	130
Barnet { Asylum ² ..	2,413				
Greenford	1,200	19	15·8	3	157
Hampton	9,000	198	22·0	18	90
Hampton Wick ..	2,630	40	15·2	1	25
Hanwell	19,776	564	28·5	74	131
Harrow	13,697	327	23·2	29	88
Hayes	3,000	88	29·3	11	125
Hendon { District ..	27,546	703	25·5	72	102
{ Institutions ³ ..	655				
Heston & Isleworth ..	33,767	1,134	33·5	153	134
Hornsey (<i>Borough</i>) ..	86,877	1,603	18·4	136	84
Kingsbury	805	13	16·1	1	76
Ruislip-Northwood ..	4,755	119	25·2	7	58
Southall- { District ..	18,777	621	33·0	96	154
Norwood { Asylum ⁴ ..	2,825				

¹ Edmon-ton Union Workhouse, Strand Union Workhouse and Strand Union Schools.

² London County Lunatic Asylum (Colney Hatch).

³ Cleveland Street Sick Asylum (Strand District) and Hendon Union Workhouse.

⁴ London County Lunatic Asylum (Hanwell).

MIDDLESEX.—TABLE I.

IN THE COUNTY DURING 1906.

Registered District.		Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Net Deaths at all Ages belonging to the District.		
At all Ages.					Number.	Rate per 1,000 living.	
Number.	Rate per 1,000 living.						
7	8	9	10	11	12	13	
597	11.4	29	7	97	687	13.2	Acton
216	13.5	..	..	55	271	17.0	Brentford
361	10.6	17	12	92	441	13.0	Chiswick
558	11.5	38	9	73	622	12.8	Ealing (<i>Borough</i>)
915	15.5	337	256	124	783	13.7	Edmonton
579	10.9	90	36	51	594	11.2	Enfield
54	9.3	..	..	11	65	11.2	Feltham
337	11.0	25	22	45	360	11.7	Finchley
315	24.1	200	200	24	139	13.2	Friern Barnet
15	12.5	..	..	2	17	14.1	Greenford
73	8.1	1	2	24	95	10.5	Hampton
21	7.9	..	2	8	27	10.2	Hampton Wick
205	10.3	..	..	36	241	12.1	Hanwell
115	8.4	3	..	15	130	9.4	Harrow
48	16.0	3	2	4	50	16.6	Hayes
358	12.9	135	106	50	302	10.9	Hendon.
725	21.4	304	229	16	512	15.1	Heston & Isleworth
672	7.7	35	20	117	769	8.8	Hornsey (<i>Borough</i>)
7	8.6	..	..	2	9	11.1	Kingsbury
34	7.1	1	1	6	39	8.2	Ruislip- Northwood
410	18.9	196	196	30	244	12.9	Southall-Norwood

ADMINISTRATIVE COUNTY OF

VITAL STATISTICS OF EACH DISTRICT

1	2	Births.		Total Deaths in the	
		Number.	Rate per 1,000 living.	Under 1 Year of Age.	
				Number.	Rate per 1,000 Births registered.
3	4	5	6		
<i>Urban—continued.</i>					
Southgate	25,500	562	22·0	60	106
Staines	7,046	171	24·2	25	146
Sunbury	4,680	115	24·5	11	95
Teddington	17,000	438	25·7	53	121
Tottenham	134,605	3,674	27·2	484	131
Twickenham	27,000	811	30·0	108	133
Uxbridge	9,300	253	27·2	30	118
Wealdstone	10,760	303	28·1	28	92
Wembley	6,000	172	28·6	14	81
Willesden	141,714	4,272	30·1	477	111
Wood Green	46,000	1,232	26·7	127	103
<i>Rural.</i>					
Hendon	11,476	205	17·8	17	82
South Mimms	2,808	61	21·7	5	82
Staines	21,824	525	24·0	59	112
Uxbridge	12,743	358	28·1	65	181

MIDDLESEX.—TABLE I.—*continued.*IN THE COUNTY DURING 1906—*continued.*

Registered District.		Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of residents registered in Public Institutions beyond the District.	Net Deaths at all Ages belonging to the District.		
At all Ages.					Number.	Rate per 1,000 living.	
Number.	Rate per 1,000 living.						
7	8	9	10	11	12	13	
234	9.1	8	5	47	276	10.8	Southgate
77	10.9	..	..	3	80	11.3	Staines
52	11.1	..	..	19	71	15.1	Sunbury
217	12.7	21	8	29	238	14.0	Teddington
1,605	12.3	301	200	268	1,673	12.4	Tottenham
334	12.3	23	5	44	373	13.8	Twickenham
130	13.9	..	..	21	151	16.2	Uxbridge
74	6.8	..	..	11	85	7.9	Wealdstone
46	7.6	..	..	7	53	8.8	Wembley
1,518	10.7	219	17	171	1,672	11.8	Willesden
420	9.1	25	12	80	488	10.6	Wood Green
93	8.1	..	6	14	101	8.8	Hendon
30	10.6	2	2	3	31	11.0	South Mimms
275	12.6	43	23	13	265	12.1	Staines
213	16.7	54	37	14	190	14.9	Uxbridge

COUNTY OF MIDDLESEX.—

CAUSES OF DEATH RECORDED IN

			Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Croup.
<i>Urban.</i>								
Acton	6	..	1	..
Brentford	4	7	3	12	1
Chiswick	3	..	7	5	..
Ealing (<i>Borough</i>)	5	1	15	11	..
Edmonton
Enfield	11	7	7	1	2
Feltham	1	..	..	..
Finchley	7	5	1	3	..
Friern Barnet..	6	..	..	1	3
Greenford	2	..	..
Hampton	4	..	..	1	..
Hampton Wick	1	..	..	..
Hanwell	6	2	7	3	..
Harrow	3	..	..
Hayes	2	2	..
Hendon	3	2	5	5	..
Heston and Isleworth	17	..	6	3	1
Hornsey (<i>Borough</i>)
Kingsbury	2	..	..	..
Ruislip-Northwood
Southall-Norwood	2	3	1	..
Southgate	1	2	4	5	1
Staines	2	..
Sunbury	2	..
Teddington	6	..	3	..	..
Tottenham	44	18	23	12	2
Twickenham	13	1	3	2	..
Uxbridge	1	1	5	1	..
Wealdstone	1	..	..	..	..
Wembley	1	1	..
Willesden	25	11	25	16	2
Wood Green	3	7	9	9	6
<i>Rural.</i>								
Hendon
South Mimms
Staines	7	1	7	4	..
Uxbridge	1	7	1	..

TABLE II.

THE DISTRICT REPORTS FOR 1906.

Fever.			Epidemic Influenza.	Cholera.	Plague.	Diarrhœa.	Enteritis.	Puerperal Fever.	Erysipelas.
Typhus.	Enteric.	Other continued.							
..	3	..	..	..	..	..	..	..	..
..	1	..	1	..	..	32	..	1	2
..	1	..	..	..	..	32	5	..	2
..	..	..	10	..	..	61	12	1	2
..	2	..	2	..	..	66	8	..	3
..	..	..	..	..	..	8	2	..	..
..	..	..	7	..	..	31	1	2	..
..	1	..	2	..	..	8	5	..	..
..
..	..	..	1	..	..	6	2	1	..
..	2	..	..	..	..	2	..	..	..
..	1	..	5	..	..	34	1	..	..
..	2	..	3	..	..	2	10	..	..
..	..	..	..	..	..	3	..	..	1
..	1	..	2	..	..	21	..	2	..
..	1	..	3	..	..	58	..	..	..
..
..	..	..	..	..	..	..	1	..	..
..	..	..	..	..	..	32	7	1	3
..	9	..	4	..	..	27	2	2	..
..	..	..	..	..	..	10	..	..	..
..	..	..	..	..	..	3	3	..	..
..	1	..	4	..	..	21	..	1	..
..	5	..	14	..	..	182	14	5	1
..	..	..	6	..	..	45	14	..	1
..	..	..	1	..	..	9	1	..	..
..	..	..	1	..	..	12	..	..	..
..	..	..	1	..	..	..	6	..	..
..	7	..	24	..	..	157	10	5	2
..	1	..	7	..	..	52	3	4	..
..	1	..	1	..	..	7	1	..	..
..	..	..	..	..	..	1	..	..	..
..	..	..	4	..	..	27	2	..	..
..	..	..	..	..	..	17	1	..	..

COUNTY OF MIDDLESEX.—

CAUSES OF DEATH RECORDED IN THE

			Other Septic Diseases.	Phthisis (Pulmonary Tuberculosis).	Other Tubercular Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.
<i>Urban.</i>								
Acton .. ..	..	..	1	..	..	2	1	2
Brentford .. ..	..	..	..	14	1	9	16	24
Chiswick .. ..	..	..	..	44	6	42	32	45
Ealing (<i>Borough</i>) ..	..	..	4	39	11	44	38	33
Edmonton .. ..	..	..	..	..	..	..	..	..
Enfield .. ..	..	..	1	34	25	43	32	49
Feltham .. ..	..	..	1	2	1	4	5	6
Finchley .. ..	..	..	7	30	15	24	16	28
Friern Barnet .. ..	..	..	..	6	9	4	8	10
Greenford .. ..	..	..	..	..	..	2	1	2
Hampton .. ..	..	..	..	9	..	4	4	5
Hampton Wick .. ..	..	..	2	3	..	2	2	1
Hanwell .. ..	..	..	..	8	6	7	16	19
Harrow .. ..	..	..	..	11	2	13	..	..
Hayes .. ..	..	..	..	4	..	4	3	7
Hendon .. ..	..	..	1	17	19	26	16	13
Heston and Isleworth ..	..	..	9	31	14	43	30	12
Hornsey (<i>Borough</i>) ..	..	..	..	..	..	..	..	..
Kingsbury .. ..	..	..	..	..	..	2	..	1
Ruislip-Northwood ..	..	..	..	5	1	4	5	..
Southall-Norwood ..	..	..	4	13	7	20	10	19
Southgate .. ..	..	..	..	9	9	27	13	12
Staines .. ..	..	..	1	3	6	4	6	3
Sunbury .. ..	..	..	2	7	..	10	5	4
Teddington .. ..	..	..	6	19	6	16	15	20
Tottenham .. ..	..	..	7	75	112	78	104	112
Twickenham .. ..	..	..	1	31	11	23	12	4
Uxbridge .. ..	..	..	..	11	8	9	10	13
Wealdstone .. ..	..	..	1	7	2	1	7	11
Wembley .. ..	..	..	..	4	2	5	1	4
Willesden .. ..	..	..	18	139	49	111	79	130
Wood Green .. ..	..	..	3	35	8	38	42	32
<i>Rural.</i>								
Hendon .. ..	..	..	1	7	3	15	12	9
South Mimms .. ..	..	..	..	2	..	4	..	3
Staines .. ..	..	..	1	23	2	14	12	14
Uxbridge .. ..	..	..	2	17	7	7	27	9

TABLE II.—*continued.*DISTRICT REPORTS FOR 1906—*continued.*

Pleurisy.	Other Diseases of Respiratory Organs.	Alcoholism, Cirrhosis of Liver.	Veneral Diseases.	Premature Birth.	Diseases and Accidents of Parturition.	Heart Diseases.	Accidents.	Suicides.	All other causes.
..	1	1	..	..	..	2	3	1	5
..	..	2	2	7	1	15	11	..	50
2	..	7	3	15	3	60	6	5	116
..	4	8	1	16	7	42	19	2	236
5	..	4	1	25	..	49	18	5	195
..	..	1	..	2	..	8	2	..	22
..	..	2	1	19	2	29	6	1	123
..	3	1	..	5	2	12	3	..	50
..	..	..	..	1	1	..	..	..	6
..	..	4	..	..	..	8	3	1	42
..	..	..	..	..	..	2	1	1	8
2	1	1	..	11	2	17	4	..	52
..	18	1	..	8	2	17	1	..	37
..	..	2	..	4	..	1	..	..	17
1	..	5	..	10	1	25	7	6	114
1	22	8	2	17	7	28	13	4	183
..	..	..	..	..	..	..	..	..	4
..	..	1	..	3	..	4	1	1	8
..	..	5	1	21	1	20	5	5	64
..	5	10	..	12	1	27	6	..	88
..	..	2	..	3	1	6	4	..	29
..	4	1	..	2	1	1	3	..	23
2	4	3	..	9	1	23	4	4	70
7	29	23	2	61	6	156	38	6	546
..	9	8	..	16	2	19	20	8	124
..	3	4	1	7	..	16	7	..	43
2	1	1	..	5	2	6	1	..	24
1	..	..	..	4	..	7	1	..	15
9	17	30	6	87	6	132	43	14	518
..	..	9	3	21	..	40	15	4	147
..	..	..	..	5	..	5	1	1	32
..	..	..	..	..	..	1	3	..	17
3	..	..	..	3	1	29	3	..	108
..	3	1	1	11	1	21	6	2	71

COUNTY OF MIDDLESEX.—TABLE III.—SANITARY WORK, 1906.

NAME OF SANITARY DISTRICT.	Inspections.						Notices.			
	Number of Premises Inspected on Complaint.	Number of Premises Inspected in connection with Infectious Diseases.	Number of Premises under Periodical Inspection.	Houses Inspected from House-to-House.	Total Number of Inspections and Re-inspections made.		Cautenary Notices Given.	Statutory Orders Issued.	Summonses Served.	Convictions Obtained.
<i>Urban.</i>										
Acton ..	483	276	286	138	5,855		1,200	692	4	4
Brentford ..	..	..	..	..	..		63			
Chiswick ..	204	649	68	2,721	9,838		757	1,266	..	..
Ealing (<i>Borough</i>) ..	132	323	292	259	6,062		479	358	18	18
Edmonton ..	309	515	288	532	11,382		2,536	764	1	1
Enfield ..	357	312	360	911	16,151		2,233	228	20	20
Feltham ..	18	31	292	292	341		74	29	..	..
Finchley ..	179	157	350	294	5,839		208	97	..	..

Friern Barnet ..	87	79	52	93	1,451	302	46	8	8
Greenford..	2	..	24	28	136	26	6	1	1
Hampton ..	32	242	51	57	2,463	147	10	..	..
Hampton Wick ..	3	144	8	315	459	30	2	..	..
Hanwell ..	42	102	85	701	2,390	..	140	2	2
Harrow ..	88	36	139	12	692	80	20	..	..
Hayes ..	20	9	50	..	..	..	..	..	..
Hendon ..	48	202	193	100	1,945	212	43	..	..
Heston and Isleworth	54	137	398	123	14,590	3,117	318	1	1
Hornsey (<i>Borough</i>)	220	763	525	187	7,634	726	445	3	3
Kingsbury ..	..	..	..	..	..	..	..	..	..
Ruislip-Northwood	49	85	49	616	821	81	21	1	1
Southall-Norwood	87	126	104	75	850	302	8	..	..
Southgate..	98	197	127	245	3,026	149	36	..	..
Staines ..	47	6	..	35	289	40	88	..	..
Sunbury ..	25	29	22	119	394	40	..	..	..
Teddington	26	108	75	1,064	3,924	78	8	..	..
Tottenham	665	1,739	..	1,677	23,164	1,995	665	10	7
Twickenham	73	115	274	2,254	5,731	167	243	..	..
Uxbridge ..	190	64	..	310	..	198	58	..	..
Wealdstone	23	59	76	9	81	55	8	1	1
Wembley ..	35	..	..	210	743	74	13	1	1
Willesden	1,027	1,057	658	1,778	17,939	2,149	464	..	..
Wood Green	796	120	268	206	4,328	418	352	8	8
<i>Rural.</i>	..	..	..	..	..	..	..	..	..
Hendon ..	62	63	..	527	2,038	706	12	..	..
South Mimms	..	7	72	..	108	..	10	..	..
Staines ..	23	53	625	705	2,513	315	75	2	2
Uxbridge ..	30	118	69	258	684	..	25	..	..

COUNTY OF MIDDLESEX. —TABLE III.—continued.—SANITARY WORK, 1906.—continued.

NAME OF SANITARY DISTRICT.	Dwelling Houses.					Houses let in separate Dwell- ings or Lodgings.		Common Lodging Houses.		Canal Boats used as Dwellings.	
	Houses, Premises, &c., Cleansed, Repaired, &c.	Closed as Unfit for Habita- tion.	Re-opened after Repairs, Alterations, &c.	Demolished.	Illegal Underground Dwellings Vacated.	Number Registered under By-laws.	Number of Contraventions.	Number Registered under By-laws.	Number of Contraventions.	Number Registered under the Acts.	Number of Contraventions of Regulations.
<i>Urban.</i>											
Acton ..	355	..	..	..	1	132	..	72	..	305	..
Brentford..	..	..	..	..	..	341	..	..	..	..	..
Chiswick ..	364	..	..	..	..	..	..	..	..	..	..
Ealing (<i>Borough</i>)	589	1	..	1	..	..	..	1	..	..	9
Edmonton ..	165	4	..	2	4	..	..	..	..	..	..
Enfield ..	202	..	..	..	..	..	..	..	..	..	..
Feltham ..	3	..	..	..	..	..	..	..	..	..	..
Finchley ..	203	..	..	..	..	..	..	..	..	..	..
Friern Barnet ..	192	..	..	..	..	..	..	..	..	..	..

COUNTY OF MIDDLESEX.—TABLE III.—*continued.*—SANITARY WORK, 1906—*continued.*

NAME OF SANITARY DISTRICT.	Movable Dwellings, Caravans, Tents, &c.				Workshops and Workplaces.		Laundries.		Bake- houses.		Slaughter-houses.		Cow- sheds.	
	Number Observed during the Year.	Number of Nuisances therefrom Abated.	Number Removed from District.	Number in District.	Contraventions of Factory Acts.	Number in District.	Contraventions of Factory Acts.	Number in District.	Contraventions of Factory Acts.	Number on Register.	Contraventions of By-laws.	Number on Register.	Contraventions of Regulations.	
<i>Urban.</i>														
Acton ..	7	7	7	420	37	288	36	27	1	4	..	3	..	
Brentford ..	..	..	..	..	..	..	..	..	..	11	..	3	..
Chiswick ..	..	..	..	206	12	20	..	15	..	7	..	1	..
Ealing (<i>Borough</i>) ..	54	..	54	454	102	10	..	27	..	5	..	8	..	
Edmonton..	331	..	..	16	..	28	..	31	..	6	4	3	3
Enfield ..	26	..	26	133	35	8	1	40	16	17	7	33	18	
Feltham ..	4	4	4	..	..	..	..	3	..	3	..	..	..
Finchley ..	..	..	..	160	62	20	15	16	2	11	..	11	10
Friern Barnet ..	43	43	43	..	5	5	..	7	4	2	..	5	3	

Urban.

COUNTY OF MIDDLESEX—TABLE III.—*continued.*—SANITARY WORK, 1906—*continued.*

NAME OF SANITARY DISTRICT.	Dairies and Milkshops.		Unsound Food.			Adulterated Food.		Offensive Trades.		Water Supply and Water Service			
	Number on Register.	Contraventions of Regulations.	Animals seized.	Articles or Parcels seized.	Articles or Parcels surrendered.	Samples taken.	Found adulterated.	Number of Premises in District.	Contraventions of By-laws.	New Sunk.	Cleansed, Repaired, &c.	Closed as Polluted.	Percentage of Houses Supplied from Public Water Service.
<i>Urban.</i>													
Acton ..	69	..	..	388	..	62	9	3	3	..	..	1	100
Brentford ..	56	2	..	..	..	..	..	..	..	..	..	..	..
Chiswick ..	30	..	..	..	11	138	10	1	..	..	..	..	100
Ealing (<i>Borough</i>) ..	38	..	..	..	5	..	..	..	..	..	..	..	100
Edmonton ..	54	6	..	2	7	..	..	..	..	..	..	1	99
Enfield ..	81	13	..	..	22	..	..	..	..	..	3	1	..
Feltham ..	2	..	..	..	..	..	..	..	..	..	27	..	80
Finchley ..	29	2	..	..	..	..	..	..	..	..	..	..	99
Friern Barnet ..	13	..	..	..	8	6	..	..	..	..	2	..	Nearly all.

Greenford	7	1	100
Hampton ..	5	1	99
Hampton Wick	2	1	100
Hanwell ..	15	3	99·9
Harrow ..	5	1	2	100
Hayes ..	3
Hendon ..	26	5	1	..	2	99
Heston and Isleworth	52	86	27	2	1	..	99
Hornsey (<i>Borough</i>)	68	20	*	334	8	4	..	100
Kingsbury	..	6	..	..	..	..	..	..	..	4	80
Ruislip-Northwood	8	..	..	..	..	..	..	..	2	4	..
Southall-Norwood	20	1	..	..	7	..	..	..	2	..	100
Southgate	17	..	..	..	..	..	..	1	8	..	96
Staines ..	15	..	..	..	..	..	..	..	..	2	90
Sunbury ..	6	..	..	..	..	..	..	..	..	..	..
Teddington	20	2	..	5	..	..	3	..	..	..	99·9
Tottenham	190	6	..	..	30	..	..	..	..	1	99·5
Twickenham	40	..	..	..	..	..	..	1	..	..	..
Uxbridge	7	..	3	..	4	..	..	..	..	..	100
Wealdstone	10	..	..	..	..	..	..	1	..	..	100
Wembley ..	13	2	..	..	..	..	..	..	..	..	..
Willesden ..	132	19	1	..	13	..	..	1	..	..	100
Wood Green	38	..	1	..	†	..	..	..	..	..	100
<i>Rural.</i>
Hendon ..	20	8	..	..	..	..	..	..	..	..	95
South Mimms	18	13	7	..
Staines ..	13	18
Uxbridge ..	24

* Meat, 16 lbs., Fish, 18 st., Fruit, 45 lbs. 1 Pig, 12 Pigs' Bellies, 1 cwt. Meat, 1 box Kippers, 1 trunk of Mackerel, 8 Sheep's Plucks.

COUNTY OF MIDDLESEX.—TABLE III.—*continued.*—SANITARY WORK, 1906—*continued.*

260

NAME OF SANITARY DISTRICT.	Water Supply and Water Service.				Drainage and Sewerage.			
	Cisterns.			Percentage of Houses Supplied on Constant System.	Water Closets.			Percentage of Houses Provided with Water Closets.
	New, Provided.	Cleaned, Repaired, Covered, &c.	Overflow Pipes Dis- connected from Drains.		New Constructed.	No. of Water Closets sub- stituted for Dry Recep- tacles.	Repaired, Supplied with Water, or otherwise Improved.	
<i>Urban.</i>								
Acton ..	9	45	1	15	176	..	212	100
Brentford ..	..	..	..	..	49	..	181	..
Chiswick ..	..	14	..	128	..	..	276	100
Ealing (<i>Borough</i>)	1	11	..	39	..	..	219	99
Edmonton	2	32	..	20	..	1	..	99
Enfield ..	7	46	..	..	6	..	325	..
Feltham ..	..	..	..	..	9	4	..	75
Finchley ..	1	76	..	..	134	..	167	100
Friern Barnet	1	31	1	..	1	..	134	100
Greenford	..	3	..	..	4	..	8	..

COUNTY OF MIDDLESEX.—TABLE III.—continued.—SANITARY WORK, 1906—continued.

NAME OF SANITARY DISTRICT.	Drainage and Sewerage.										Disinfection.		
	Drains.										Rooms Disinfected.	Rooms Stripped and Cleansed.	Articles Disinfected or Destroyed.
	Cesspools.						Percentage of Houses Draining into Sewers.						
	Examined, Tested, Exposed, &c.	Unstopped, Repaired, Trapped, &c.	Waste Pipes, Rain Water Pipes, Disconnected, Repaired, &c.	Soil Pipes and Drains Ventilated.	Disconnecting Traps or Chambers Inserted.	Reconstructed.		Rendered Impervious, Emptied, Cleansed, &c.	Abolished, and Drain Connected to Sewer.				
<i>Urban.</i>													
Acton ..	187	339	293	164	273	136	1	4	100	377	..	..	..
Brentford ..	333	68	39	151	126	126	..	..	100	127	76	..	37
Chiswick ..	..	127	65	34	180	118	..	1	99	297	15	3,806	..
Ealing (<i>Borough</i>) ..	584	236	57	51	92	90	..	2	99	575	251	6,357	..
Edmonton..	243	333	25	54	30	67	161	1	..	246	57	3,232	..
Enfield ..	147	147	..	6	..	6	608	..	..	26	..	..	..
Feltham ..	153	101	62	60	132	95	1	2	99	228	21	3,608	..
Finchley ..	94	38	34	46	22	30	..	1	100	79	79	948	..
Friern Barnet ..	19	14	2	3	4	8	4	..	..	..	..	..	..
Greenford..	10	95	1	12	19	12	12	9	95	135	57	..	..
Hampton ..	..	..	..	..	..	..	..	..	..	..	..	..	..

Hampton Wick ..	1	1	..	..	3	..	..	100	53	..	..	..
Hanwell ..	49	118	17	30	35	1	..	99.9	99	91	1,724	..
Harrow ..	168	41	56	54	23	1	..	99	68	13	585	..
Hayes ..	..	..	..	..	..	..	..	..	..	..	..	..
Hendon ..	154	125	80	43	30	6	..	99	267	24	..	..
Heston and Isleworth ..	992	561	191	4	23	11	..	98	149	..	1,490	..
Hornsey (<i>Borough</i>) ..	565	211	300	150	227	..	3	100	667	105	20,108	..
Kingsbury ..	134	128	20	..	3	10	8	70	31	10	320	..
Ruislip-Northwood ..	131	100	11	..	..	12	5	..	126	16	..	..
Southall-Norwood ..	92	35	26	48	65	1	..	99	225	173	1,236	..
Southgate.. ..	2	30	..	..	2	..	..	95	6	6	..	..
Staines ..	66	9	..	16	..	..	9	90	29	29	40	..
Sunbury ..	4	120	11	7	2	6	2	99	46	13	..	..
Teddington ..	1,928	267	245	17	524	..	..	99.9	773	550	26,425	..
Tottenham ..	25	132	48	15	21	..	1	99.5	120	19	..	..
Twickenham ..	31	59	39	9	24	2	1	90	126	24	..	..
Uxbridge ..	10	23	..	3	8	1	..	99	39	12	11	..
Wealdstone ..	..	20	6	1	2	3	..	99	..	..	..	..
Wembley ..	614	132	464	236	116	..	..	100	1,240	73	..	..
Willesden.. ..	141	107	145	69	116	..	..	..	277	244	3,665	..
Wood Green ..	..	..	..	..	..	..	..	..	..	..	..	..
<i>Rural.</i>	..	..	..	..	..	..	..	..	..	..	..	..
Hendon ..	99	148	12	23	27	9	5	..	97	32	..	..
South Mimms ..	8	4	..	1	8	3	..	95	7	7	..	..
Staines ..	12	60	21	53	24	97	3	..	74	74	..	..
Uxbridge ..	4	8	..	..	..	55	43	..	75	4	..	..

COUNTY OF MIDDLESEX.—TABLE III.—*continued*.—SANITARY WORK, 1906—*continued*.

NAME OF SANITARY DISTRICT.	Dust,		Number of Complaints of Non-removal received.	Overcrowding.	Smoke.	Accumulations of Refuse.	Foul Ditches, Ponds, &c., and Stagnant Water.	Foul Pigs and other Animals.	Dampness.	Other Nuisances.
	New Bins provided.	Periodical frequency of Dust Removal.								
<i>Urban.</i>										
Acton ..	90	Weekly	..	12	16	73	..	15	49	698
Brentford ..	..	..	..	..	..	..	..	..	..	..
Chiswick ..	211	Weekly	109	13	2	29	..	38	2	..
Ealing (<i>Borough</i>) ..	118	ditto	73	2	2	29	1	28	2	239
Edmonton ..	124	ditto	76	22	18	18	6	17	290	319
Enfield ..	126	ditto	26	23	7	47	11	35	358	16
Feltham ..	3	3 days per week	..	..	..	8	4	8	..	..
Finchley ..	60	Weekly	..	8	1	13	4	8	128	..
Friern Barnet ..	200	ditto	3	2	1	14	2	9	167	182

Greenford..	..	10	Weekly	..	5	..	11	17	3	22	..
Hampton ..	..	28	ditto	..	3	..	15	2	5	34	39
Hampton Wick	..	9	ditto	..	..	..	10	..	1	..	..
Hanwell ..	..	49	ditto	..	4	2	17	..	11	72	74
Harrow ..	..	39	ditto	5	3	2	14	1	7	11	84
Hayes ..	..	..	Weekly	..	..	..	..	..	..	..	..
Hendon ..	..	123	Fortnightly	6	9	1	20	4	7	12	104
Heston and Isleworth	..	211	Once from	36	20	2	329	27	46	485	248
Hornsey (<i>Borough</i>)	..	68	houses, twice from flats each week	46	8	5	75	9	3	67	109
Kingsbury	..	..	Weekly	13	2	..	5	10	3	4	12
Buislip-Northwood	..	41	Weekly	..	10	1	19	1	10	..	99
Southall-Norwood	..	..	Weekly	27	3	7	8	6	4	5	53
Southgate ..	..	38	ditto	2	2	1	3	..	2	..	..
Staines ..	..	30	ditto	8	..	..	5	1	4	24	14
Sunbury ..	..	10	Daily	..	3	..	17	6	2	38	26
Teddington	..	6	Weekly	..	55	92	85	..	..	..	279
Tottenham	..	311	ditto	120	15	3	30	6	9	61	182
Twickenham	..	73	Fortnightly	61	7	..	21	..	8	19	28
Uxbridge ..	..	40	ditto	..	..	3	8	9	4	2	3
Wealdstone	..	3	ditto	32	..	1	10	9	3	12	53
Wembley ..	..	40	ditto	14	3	..	127	..	..	265	360
Willesden	..	137	ditto	138	24	..	40	..	4	52	256
Wood Green	..	204	ditto	34	19	13	..	..	..	..	..
<i>Rural.</i>	..	..	ditto	44	9	..	150	28	8	71	..
Hendon ..	..	7	Weekly*	..	..	..	2	2	..	..	..
South Mimms	..	..	Fortnightly	..	..	..	127	9	176	4	..
Staines	40	6	..	2	11	5	..	30
Uxbridge	1

* In Ashford and Hanworth.

HARRISON AND SONS,
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M.O. ³⁹
1907

County Council of Middlesex.



ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1906,

INCLUDING A

SUMMARY OF THE ANNUAL REPORTS OF THE
DISTRICT MEDICAL OFFICERS OF HEALTH.

BY

C. W. F. YOUNG, M.D., D.P.H.,

County Medical Officer of Health.

London:

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